

**1 APRIL 1999**



***Flying Operations***

***E-3/TC-18--AIRCREW EVALUATION  
CRITERIA***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**NOTICE:** This publication is available digitally on the SAF/AFDPO WWW site at: <http://afpubs.hq.af.mil>. If you lack access, contact your Publishing Distribution Office (PDO).

---

OPR: HQ ACC/DISA  
(Maj William S. Tully, Jr.)  
Supersedes MCR 60-2V9, 3 May 1993

Certified by: HQ USAF/XOO  
(Brig Gen David L. Moody)  
Pages: 143  
Distribution: F

---

This instruction implements AFD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. It provides guidance and procedures for administering E-3 AWACS aircrew evaluations, and establishes separate qualification, mission and instructor evaluation grading criteria for each E-3 crew position. It does not apply to Air National Guard (ANG) members and units. MAJCOMs/DRUs/FOAs will forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/XOOT, through HQ ACC/DISA, for approval prior to publication IAW AFD 11-2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/DISA, and the user MAJCOM/DRU/FOA offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. **NOTE:** The terms Direct Reporting Unit (DRU) and Field Operating Agency (FOA) as used in this paragraph refer only to those DRUs/FOAs that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.2. of this volume for guidance on submitting comments and suggesting improvements to this publication.

The Privacy Act of 1974 affects this instruction. The Privacy Act System Number F011 AF XO A, Air Force Operations Resource Management Systems (AFORMS) covers required information. The authority for maintenance of AFORMS is 37 U.S.C. 301a (Incentive Pay), Public Law 92-204, Section 715 (Appropriations Act for 1973), Public Laws 93-570 (Appropriations Act for 1974), 93-294 (Aviation Career Incentive Act of 1974), DoDD 7730.57 (Aviation Career Incentive Act of 1974 and Required Annual Report, February 5, 1976, with Changes 1 and 2), and Executive Order 9497.

The Paperwork Reduction Act of 1974 as amended in 1996 affects this instruction. Also, the Air Force Forms Management Program IAW AFI 37-160V8, *The Air Force Publications and Forms Management Program-Developing and Processing Forms*, affects this instruction.

<b>Chapter 1—GENERAL INFORMATION</b>	<b>4</b>
1.1. General .....	4
1.2. Recommended Changes/Waivers .....	4
1.3. Procedures .....	4
1.4. Grading Policies .....	5
1.5. Ground Phase Requisites .....	5
1.6. Flight Simulator Evaluation Procedures .....	6
1.7. Cockpit/Crew Resource Management (CRM) .....	7
1.8. Mission Simulator Evaluation Procedures .....	7
1.9. Instructor Aircrew Evaluation Procedures .....	7
1.10. Records Disposition .....	7
<b>Chapter 2—EVALUATION REQUIREMENTS</b>	<b>8</b>
2.1. General .....	8
2.2. Instrument/Qualification Evaluation .....	8
2.3. Mission Evaluation .....	8
2.4. Instructor Evaluation .....	8
<b>Chapter 3—EVALUATION CRITERIA</b>	<b>11</b>
3.1. General .....	11
3.2. Pilot/Copilot Qualification, Mission, and Instrument Flight Evaluations .....	11
Table 3.1. Consolidated Performance Data Limit. ....	24
Table 3.2. Pilot/Copilot Evaluation Matrix .....	25
3.3. Navigator Qualification and Mission Flight Evaluations .....	26
Table 3.3. Navigator Evaluation Matrix .....	35
3.4. Flight Engineer Qualification And Mission Flight Evaluations .....	36
Table 3.4. Consolidated Performance Data Limits .....	42
Table 3.5. Flight Engineer Evaluation Matrix .....	43
3.5. Mission Crew Commander Qualification and Mission Flight Evaluations .....	44
Table 3.6. Mission Crew Commander Evaluation Matrix .....	52

<b>AFI 11-2E3/TC-18V2 1 APRIL 1999</b>	<b>3</b>
3.6. Senior Director Qualification and Mission Flight Evaluations .....	53
Table 3.7. Senior Director Evaluation Matrix .....	62
3.7. Weapons Director Qualification and Mission Flight Evaluations .....	63
Table 3.8. Weapons Director Evaluation Matrix .....	72
3.8. Air Surveillance Officer Qualification and Mission Flight Evaluations .....	73
Table 3.9. Air Surveillance Officer Evaluation Matrix .....	82
3.9. Electronic Combat Officer Qualification and Mission Flight Evaluations .....	83
Table 3.10. Electronic Combat Officer Evaluation Matrix .....	90
3.10. Senior Surveillance Technician Qualification and Mission Flight Evaluations .....	91
Table 3.11. Senior Surveillance Technician Evaluation Matrix .....	98
3.11. Air Surveillance Technician Qualification and Mission Flight Evaluations .....	98
Table 3.12. Air Surveillance Technician Evaluation Matrix .....	104
3.12. Airborne Communications Specialist Qualification And Mission Flight Evaluations	105
Table 3.13. Airborne Communication Specialist Evaluation Matrix .....	111
3.13. Computer Display Maintenance Technician Qualification and Mission Flt Evals ...	111
Table 3.14. Computer Display Maintenance Technician Evaluation Matrix .....	116
3.14. Computer Display Maintenance Operator Qualification and Mission Flt Evals .....	117
Table 3.15. Computer Display Maintenance Operator Evaluation Matrix .....	122
3.15. Airborne Radar Technician Qualification and Mission Flight Evaluations .....	122
Table 3.16. Airborne Radar Technician Evaluation Matrix .....	126
3.16. Airborne Radar Operator Qualification and Mission Flight Evaluations .....	127
Table 3.17. Airborne Radar Operator Evaluation Matrix .....	130
3.17. Battle Director Technician Qualification and Mission Flight Evaluations .....	131
Table 3.18. Battle Director Technician Evaluation Matrix .....	137
<b>Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION</b>	<b>138</b>

## Chapter 1

### GENERAL INFORMATION

**1.1. General.** This volume, in conjunction with AFI 11-202V2, *Aircrew Standardization/Evaluation Program*, provides both flight examiners and aircrew members with procedures and evaluation criteria that will be used during flight evaluations. It is a reference document and a standard for training and operational purposes. Adherence to these procedures and criteria will ensure an accurate assessment of the proficiency and capabilities of aircrew members.

#### **1.2. Recommended Changes/Waivers:**

1.2.1. Recommendations for changes are encouraged. Recommendations should focus on specific areas and standards of performance. Forward comments through channels to HQ ACC/DIS, HQ PACAF/DOT or HQ AFRC/DOT using AF Form 847, **Recommendation for Change of Publication**. HQ USAF/XO is the approval authority for interim changes to this instruction.

1.2.2. Waivers to this publication will be requested from HQ ACC/DIS, HQ PACAF/DOT, or HQ AFRC/DOT through command channels.

#### **1.3. Procedures:**

1.3.1. **Aircrew Flight Evaluation Procedures.** E-3 AWACS aircrew flight evaluations will be conducted IAW AFI 11-202V2, and the following instructions:

1.3.1.1. **Prior to Flight.** The Stan/Eval Flight Examiner (SEFE) will explain the purpose of the flight and how it will be conducted. The examinee will accomplish all mission planning.

1.3.1.2. **During Flight.** The SEFE will evaluate the examinee's performance for each graded area and note discrepancies when deviations from prescribed performance criteria occur during the flight evaluation.

1.3.1.3. **Post Flight.** The SEFE will compare the examinee's performance with the grading criteria and will assign an appropriate grade for each area. The SEFE will consider cumulative momentary deviations. If flight manuals/instructions/publications recommend a specific range for performance, the SEFE will apply the grading criteria to the upper and lower limits of that range. The judgment of the SEFE will be the determining factor in assigning an overall grade for the examinee's performance. The SEFE will thoroughly critique all aspects of the evaluation. During this critique, the SEFE will review the examinee's overall rating, specific deviations, area grades assigned, and any additional training which the examinee will be required to complete. All initial qualification or initial instructor evaluations will be debriefed with the examinee's squadron commander/operations officer (or designated representative), flight commander (or designated representative), and a representative from the gaining squadron if available.

1.3.2. **Flight Crew Evaluation Procedures.** Copilots initially upgrading to pilot will have a qualified IP/SEFE in the copilot's position during engine start and taxi operations, takeoffs, air refueling, instrument approaches, and landings. The SEFE will disregard minor deviations from tolerances for the purpose of clearing conflicting traffic provided the examinee initiates timely corrective action. When VMC, see and avoid responsibilities are paramount.

1.3.3. For combat mission ready (CMR) aircrew to complete an evaluation, all areas annotated with an "R" must be accomplished. Basic mission capable (BMC) aircrew will only be evaluated on those missions routinely performed. BMC examinees will only be evaluated on those areas for which they are qualified to perform unsupervised. Strive to complete all evaluation requirements on one flight for efficiency.

1.3.4. The flight examiner should not occupy a primary crew position during evaluations to ensure the most comprehensive evaluation. However, if conditions warrant, the flight examiner may occupy a primary crew position during an evaluation.

1.3.5. Required areas are shown in individual crew position criteria matrixes. When conditions such as equipment malfunction, operational requirements, or weather preclude evaluation of a particular event inflight, it may be evaluated by an alternate method (i.e., Aircrew Training Device (ATD) or by an oral evaluation) in order to complete the evaluation. Document alternate evaluation method in the Comments section of the AF Form 8, **Certificate of Aircrew Qualification**.

#### 1.4. Grading Policies:

1.4.1. Standardization/Evaluation Flight Examiners (SEFEs) will use the grading policies contained in AFI 11-202V2, and the evaluation criteria in this instruction for conducting all E-3 AWACS aircrew flight evaluations. Use of these criteria will ensure standard and objective evaluations are administered to aircrew members. SEFEs and crewmembers will be thoroughly familiar with the prescribed grading criteria in this regulation. A three-level grading system is used for most areas. A "U" grade may not be indicated under all task areas. If an individual's performance is less than that specified under "Q-," a "U" grade will be awarded.

1.4.2. **Critical Grading Areas.** Critical grading areas have been established for aircrew flight evaluations IAW AFI 11-202V2. Critical areas are defined as events that require adequate accomplishment by the examinee in order to successfully achieve the mission objectives and complete the evaluation. If an examinee receives a "U" grade in any critical area, the overall grade for the evaluation will also be unqualified. Critical areas are identified by "(CRITICAL)" following the applicable area title.

1.4.3. **Required Evaluation Areas.** The SEFE will evaluate the examinee's performance in all required areas. When a required area cannot be evaluated inflight because of equipment malfunctions, weather conditions, operational requirements, or lack of adequate operating airspace, the area may be graded using simulation or a verbal evaluation. SEFEs will make every effort to evaluate all required areas during the flight before resorting to this alternative. If this alternative is used, an explanation will be included in the appropriate section on the back of the AF Form 8. This explanation will identify which areas/parts of areas were not evaluated inflight.

1.4.4. **SEFE Objectivity Evaluations.** SEFE Objectivity evaluations will be accomplished at the discretion of the OG/CC to ensure standardization among evaluators. SEFE Objectivity evaluations will be documented as "SPOT" evaluations in the Mission/Check block of the Flight Phase of the AF Form 8 with further description added in the Mission Description section of the Comments block.

**1.5. Ground Phase Requisites.** The following requisites are common to all crew positions and will be accomplished IAW AFI 11-202V2 and unit directives. Pilots/Copilots, Navigators, and Flight Engineers have additional requisites which are included in their specific criteria sections. These requisites (with the

exception of the publications check) will be recorded under the Ground Phase area, Section II of the AF Form 8.

**1.5.1. Emergency Procedures Examination (Closed Book):**

1.5.1.1. **General Knowledge.** This exam consists of questions pertaining to information from all flight manuals applicable to the individual's crew position and the unit's mission.

1.5.1.2. **Bold Face.** This exam must consist of one question concerning each critical action emergency procedure applicable to the individual's specialty. The answer must contain all critical action items in proper sequence. Verbatim responses are not required however, answers must clearly state the intended course of action.

1.5.2. **Qualification Examination (Open Book).** This examination will be derived from all flight manuals and governing command directives. Units may use a secure question bank (SQB) as the source for some or all of the open book examination questions.

1.5.3. **Publications Check.** A thorough publications check will be accomplished on all required publications as a part of every flight evaluation.

1.5.4. **Emergency Procedures Evaluation (EPE).** Reference AFI 11-202V2, an EPE is required for all aircrew members within the eligibility period for required flight evaluations.

1.5.4.1. Pilot and flight engineer EPEs will be conducted in the simulator IAW paragraph **1.6.2.3.**

1.5.4.2. Navigator and all mission crewmember EPEs will be evaluated inflight or verbally. The EPE will address emergency procedures and applicable emergency equipment.

**1.6. Flight Simulator Evaluation Procedures.** Areas to be evaluated during instrument evaluations and emergency procedures evaluations (EPE) will consist of the following:

1.6.1. **Instrument Flight Evaluations (Pilot/Copilot).** Instrument Flight Evaluations are authorized to be performed in the flight simulator IAW AFI 11-202V2, as supplemented. The examinee will be evaluated on compliance with applicable procedures contained in AFMAN 11-217, *Instrument Flight Procedures*, and the flight manual. The evaluation will be based on the individual area criteria outlined in **Chapter 3**. Bold Face emergency procedures and selected systems emergencies will be evaluated during the instrument evaluation. The flight simulator may be used to complete a recurring instrument evaluation that was not completed during an inflight evaluation.

**1.6.2. Emergency Procedures Evaluations (EPEs):**

1.6.2.1. Reference AFI 11-202V2, an EPE is required for all pilots and flight engineers within the eligibility period for required flight evaluations.

1.6.2.2. SEFEs will administer all emergency procedures evaluations.

1.6.2.3. Pilot and flight engineer emergency procedures evaluations are conducted IAW criteria in **Chapter 3** of this volume, and will include the following:

1.6.2.3.1. BOLD FACE procedures.

1.6.2.3.2. Emergency procedures.

1.6.2.3.3. Systems Operation Normal/Emergency (minimum of eight systems).

1.6.2.3.4. Instrument Procedures (pilots only).

1.6.2.3.5. Unusual Attitudes (pilots only).

1.6.2.3.6. Strange field approaches (pilots only).

1.6.2.3.7. Low visibility approaches and landings (pilots only).

1.6.2.3.8. High crosswind approaches and landings (pilots only/may be done in conjunction with 1.6.2.3.7.).

1.6.2.4. AF Form 2519, **General Purpose Checklist**, will be overprinted with the appropriate evaluation areas. Evaluation results will be recorded and trended.

1.6.2.5. Emergency procedures evaluations will be conducted in the simulator/trainer when available and operational. 552 OG/OGV will develop simulator/trainer mission scenarios to include evaluation requirements established in paragraph 1.6.2.3. above. When a simulator is not available, the EPE may be conducted in a static aircraft, cockpit procedural trainer, or through verbal discussion and/or simulated action on the ground.

**1.7. Cockpit/Crew Resource Management (CRM).** IAW AFI 11-202V2, CRM skills will be evaluated for all crewmembers during all initial and periodic evaluations.

1.7.1. All aircrew CRM evaluations will be conducted throughout every phase of the evaluations. CRM is inherent in many areas of an evaluation to include mission planning, communication, crew coordination, and debriefing. Documentation of CRM will be IAW the "Aircrew Discipline/Crew Coordination" criteria in **Chapter 3** of this volume, and will include those sub-areas listed above as well as the following:

1.7.1.1. Situational awareness.

1.7.1.2. Risk management/decision making.

1.7.1.3. Task management.

**1.8. Mission Simulator Evaluation Procedures.** The mission simulators or sim-over-live inflight may be used to administer any portion of a flight evaluation not requiring a specific live scenario. Simulation may be used to complete flight evaluations, accomplish additional training, or conduct reevaluations. The SEFE's judgment will be the determining factor in the effective use of simulation.

**1.9. Instructor Aircrew Evaluation Procedures.** To initially qualify as an instructor, a crewmember must successfully complete an initial instructor evaluation which may be conducted in conjunction with the examinee's recurring qualification evaluation. Accomplish initial instructor evaluations on actual instructional missions whenever possible. Subsequently, crewmembers designated as instructors will be evaluated on their ability to instruct during all recurring evaluations.

**1.10. Records Disposition.** Records will be disposed of IAW AFM 37-139, *Records Disposition Schedule*, Table 13.10.

## Chapter 2

### EVALUATION REQUIREMENTS

**2.1. General.** All evaluations will follow the guidelines set in AFI 11-202V2. Evaluation requirements are depicted in each crew position's evaluation criteria section.

2.1.1. Areas annotated with an "R" are required items for that evaluation. A required area is a specific area that must be evaluated to complete the evaluation. Schedule all required areas on the same sortie when possible.

2.1.2. Currency of Flight Publications. Evaluate flight publications required by governing directives, to include checklists, for currency and accuracy on all flight evaluations.

### **2.2. Instrument/Qualification Evaluation:**

2.2.1. Minimum ground phase requisites are:

2.2.1.1. Closed and Open book qualification examinations.

2.2.1.2. Bold Face Examination.

2.2.1.3. Publications Check.

2.2.1.4. EPE.

2.2.1.5. Instrument Refresher Course Training. (Pilot, Copilot, and Navigator).

2.2.1.6. Instrument Examination. (Pilot, Copilot, and Navigator).

### **2.3. Mission Evaluation:**

2.3.1. **Mission Profiles.** Mission profiles will accomplish the following: reflect unit daily training mission and unit tasking, provide realistic assessment of examinee capabilities, and provide assessment of the application of current tactics. Evaluation profile sorties will be defined by the unit and will include a scenario, and other pertinent information that would normally be available in theater (Air Tasking Order (ATO), Airspace Control Order (ACO), Operational Tasking Data Links (OPTASKLINK), intelligence data such as air and ground order of battle, political assessment, etc.). Qualification and mission evaluations may be combined into a single evaluation IAW AFI 11-202V2.

2.3.2. Evaluations will be accomplished on mission/combat training sorties, or theater sorties (if deployed, with Detachment Commander (DETCO) approval and a back-up plan in case of evaluation failure) to the maximum extent possible. The examinee will demonstrate knowledge and abilities in all required areas on E-3 specified mission profiles IAW [Chapter 3](#) of this instruction. If all required areas cannot be evaluated on a single sortie, remaining areas will be evaluated in the simulator, on a subsequent sortie, or with verbal evaluation in a ground evaluation scenario.

**2.4. Instructor Evaluation.** All flying personnel selected for instructor duty must be evaluated to determine their judgment, technical knowledge, instructor ability (including error analysis of student activity), and use of grading documents as well as proficiency in their aircrew specialty. All evaluation areas will be evaluated during all instructor evaluations. Initial instructor checks may be taken in conjunction with qualification/instrument/mission checks.



2.4.1. Instructors must demonstrate proficiency by instructing a student (or qualified individual acting as a student). The evaluator may require the evaluatee to present verbal explanations of equipment operations, procedures, and techniques pertinent to their crew position duties and responsibilities.

2.4.2. **Pilot Instructor Evaluations.** Instructor evaluations will consist of all qualification/mission areas in [Chapter 3](#) of this instruction and the following additional demonstrations/criteria:

2.4.2.1. Air refueling envelope demonstration (accomplish inflight).

2.4.2.2. Approach to initial buffet (stick shaker) (accomplish in the flight simulator).

2.4.2.3. Simulated three-engine rudder boost inoperative full-stop landing or low approach (accomplish in the flight simulator only).

2.4.2.4. Simulated two-engine inoperative landing or low approach (accomplish in the flight simulator only).

2.4.2.5. **Aircraft.** Initial evaluations will be administered with an IP/SEFE in the pilot position and the examinee in the copilot position. Recurring evaluations may be administered with a student, pilot, copilot, IP, or SEFE occupying the other pilot position. The examinee may occupy either the pilot or copilot position on recurring evaluations unless a specific position is desired by the SEFE.

2.4.2.6. **Simulator.** Instructor simulator evaluations will include all areas on pilot simulator evaluations. The examinee will be required to accomplish a takeoff, precision approach, and touch-and-go landing from the copilot position on initial evaluations. On recurring evaluations the examinee may occupy either pilot or copilot position unless a specific position is desired by the SEFE.

2.4.3. **Other Aircrew Instructor Flight Evaluations.** Instructor flight evaluations will be conducted with a student occupying the applicable aircrew position whenever possible. The student will perform those duties prescribed by the instructor for the mission being accomplished. The instructor examinee will monitor all phases of flight from an advantageous position and be prepared to demonstrate or explain any area or procedure. The SEFE will particularly note the instructor's ability to recognize student difficulties and provide effective, timely corrective action. Recurring evaluations will be administered in conjunction with required qualification flight evaluations and will include all areas using both qualification and instructor criteria.

2.4.3.1. During qualification evaluations of qualified instructors, the examinee must assume the seat position for a period of time of sufficient length to demonstrate proficiency in the crew position. The determination of what represents a sufficient length of time is left to the judgment of the SEFE. The portion of the mission during which the examinee will occupy the seat position can be determined by the SEFE during mission planning or during the course of the mission.

2.4.4. An instructor receiving an area grade of U or Q- with additional training in any grading area must not perform instructor duties until additional training is complete. This restriction is placed in the comments and the YES block is marked in restrictions.

2.4.5. An instructor receiving an area grade of U or Q- with additional training in any instructor area will result in an overall Qual level 3 for the instructor evaluation.

2.4.6. Complete all upgrade training requirements prior to this check.

2.4.7. All instructors will be graded using the following criteria:

**2.4.7.1. Instructional Ability:**

2.4.7.1.1. **Q.** Demonstrated ability to communicate effectively. Provided appropriate corrective guidance when necessary. Planned ahead and made timely decisions.

2.4.7.1.2. **Q-.** Demonstrated difficulty in communicating with student. Provided untimely or inappropriate corrective guidance in minor areas or managed time poorly. These minor deviations did not adversely affect safety or mission accomplishment, or adversely affect student progress.

2.4.7.1.3. **U.** Demonstrated an inability to effectively communicate with student. Did not provide corrective guidance where necessary. Did not plan ahead or anticipate student problems. These deviations could have adversely affected safety or mission accomplishment, or adversely affected student progress.

**2.4.7.2. Briefings/Critique:**

2.4.7.2.1. **Q.** Briefings were well organized, accurate, and thorough. Reviewed student's present level of training and defined mission events to be performed. Displayed ability during the critique to reconstruct the flight, offer mission analysis, and provide corrective guidance where appropriate. Completed all training documents IAW prescribed directives. Training syllabi grades reflected actual performance of student relative to standard. Provided complete, comprehensive comments on training documentation. Correctly identified student's strengths and weaknesses. Prebriefed the student's next mission.

2.4.7.2.2. **Q-.** Minor errors or omissions in briefings, critique and/or training documents did not affect student progress.

2.4.7.2.3. **U.** Briefings were marginal or nonexistent. Did not review student's training folder or past performance. Failed to adequately critique student or provide complete mission analysis. Training syllabi grades did not reflect actual performance of student. Comments in training documentation were incomplete. Strengths and weaknesses were not identified. Overlooked or omitted major discrepancies in the documentation. Incomplete or nonexistent prebriefing of student's next mission.

**2.4.7.3. Demonstration and Performance:**

2.4.7.3.1. **Q.** Effectively demonstrated procedures and/or techniques on the ground and/or inflight, making clear distinctions between them. Demonstrated thorough knowledge of aircraft systems, procedures, and all applicable publications and regulations.

2.4.7.3.2. **Q-.** Demonstration of procedures and/or techniques not always effective. Did not always distinguish between procedures and techniques. Minor discrepancies in knowledge of aircraft systems, procedures, and/or applicable publications and regulations. Minor discrepancies did not affect safety or adversely affect student progress.

2.4.7.3.3. **U.** Did not demonstrate correct procedures and/or techniques. Did not or could not distinguish between procedures and techniques. Insufficient knowledge of aircraft systems, procedures, and/or applicable publications and regulations. These deviations could affect safety or adversely affect student progress.

## Chapter 3

### EVALUATION CRITERIA

**3.1. General.** This chapter contains the task oriented criteria for all evaluations IAW AFI 11-202V2, and AFI 11-401, *Flight Management*. Evaluation requirements are outlined in matrixes for Pilot/Copilot (P/CP), Navigator (N), Flight Engineer (FE), Mission Crew Commander (MCC), Senior Director (SD), Weapons Director (WD), Air Surveillance Officer (ASO), Electronic Combat Officer (ECO), Senior Surveillance Technician (SST), Air Surveillance Technician (AST), Airborne Communications Specialist (ACS), Airborne Mission Systems Specialist (AMSS), and Battle Director Technician (BDT) positions.

### 3.2. Pilot/Copilot Qualification, Mission, and Instrument Flight Evaluations:

**3.2.1. General.** This chapter contains the task oriented criteria for qualification, mission, and instrument evaluations of Instructor Pilot (IP), Pilot (P), and Copilot (CP), to include instrument/mission/qualification flight evaluations, and IP qualification evaluations in the Inflight Trainer (IFT).

**3.2.1.1.** Instrument/mission/qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

#### NOTES:

1. Mission evaluations should be evaluated on a mission sortie (M-sortie, S-sortie, exercise, combat training, enhanced combat training, or actual theater sortie).
2. The instructor pilot/pilot/copilot simulator/EPE may be used to fulfill the evaluation requirements of this chapter for Areas 30 through 43. It is not necessary to evaluate each of Areas 30 through 43. These areas will be evaluated if applicable to the mission and will serve as a source list for evaluating selected systems on simulator EPEs.

**3.2.1.2. Inflight Trainer Difference Certification.** All requirements and criteria for the E-3 instructor/qualification/instrument evaluation apply to this certification. A closed book written examination is the only requisite required. Holding and unusual attitudes are not required. A full stop landing with thrust reversers will be accomplished if available.

### 3.2.2. Evaluation Objectives:

**3.2.2.1. Instrument Evaluation.** The examinee must demonstrate the ability to operate the aircraft under instrument flight conditions using appropriate flight manuals, directives, and operating procedures.

**3.2.2.2. Qualification Flight Evaluation.** The examinee must demonstrate the ability to operate the aircraft and systems using appropriate flight manuals, directives, and operating procedures.

**3.2.2.3. Mission Evaluation.** The examinee must demonstrate the ability to accomplish the mission using appropriate flight manuals, directives, and operating procedures.

### 3.2.3. Ground Phase Requisites. The following requisites are required in addition to paragraph 1.5.:

#### 3.2.3.1. Qualification:

**3.2.3.1.1. BOLD FACE Examination.**

3.2.3.1.2. Emergency Procedures Evaluation (EPE).

3.2.3.2. **Instrument:**

3.2.3.2.1. Instrument Refresher Course (IRC).

3.2.3.2.2. Instrument Examination.

3.2.3.2.3. Emergency Procedures Evaluation (EPE).

3.2.3.3. **Mission:**

3.2.3.4. **Instrument/Mission/Qualification.** All requisites in paragraphs [3.2.3.1.](#), [3.2.3.2.](#), and [3.2.3.3.](#)

3.2.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

3.2.4.1. **Area 1--Mission Planning:**

3.2.4.1.1. **Q.** Pre-planned mission activities by determining mission tasking and rules of engagement (ROE) from planning/tasking documents. Obtained and analyzed maintenance status of aircraft and determined impact on mission objectives. Coordinated plans with mission crew. Checked all factors applicable to flight (weather, notice to airmen (NOTAMS), International Civil Aviation Organization (ICAO) procedures, alternate airfields, flight logs, performance data, fuel requirements, maps, etc.) IAW AFI 11-202V3, *General Flight Rules*, flight manuals, *General Planning*, and other applicable directives. Remained aware of alternates available if flight could not be completed as planned. Read and initialed for all items in the flight crew information files (FCIF) and read files.

3.2.4.1.2. **Q-.** Directed and performed mission planning with errors or omissions that did not jeopardize mission accomplishment. Knowledge of performance capabilities or approved operating procedures/rules was marginal in some areas.

3.2.4.1.3. **U.** Directed and performed mission planning with errors or omissions that could have jeopardized mission accomplishment. Faulty knowledge of operating data or procedures. Failed to read and initial for all items in the FCIF and read files.

**NOTE:**

For simulator evaluations, Area 1 will not be graded.

3.2.4.2. **Area 2--Takeoff and Landing Data (CRITICAL):**

3.2.4.2.1. **Q.** Fully knowledgeable of takeoff and landing performance data. Ensured required takeoff and landing data is computed within tolerances of Column A of [Table 3.1.](#)

3.2.4.2.2. **Q-.** Limited knowledge of takeoff and landing performance data. Ensured required takeoff and landing data is computed within tolerances of Column B of [Table 3.1.](#)

3.2.4.2.3. **U.** Did not ensure takeoff and landing data card was completed. Computations exceeded Q- criteria. Inadequate knowledge of performance data.

3.2.4.3. **Area 3--Briefings/Debriefings:**

3.2.4.3.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives. Ensured the aircrew was thoroughly briefed on all aspects of the mission.

3.2.4.3.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings and/or ensured the aircrew was thoroughly briefed on all aspects of the mission with errors or omissions that did not jeopardize mission accomplishment.

3.2.4.3.3. **U.** Failed to attend all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment. Failed to ensure the aircrew was thoroughly briefed on all aspects of the mission.

**3.2.4.4. Area 4--Premission Requirements:**

3.2.4.4.1. **Q.** Possessed all required personal/professional equipment and publications IAW applicable directives. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.2.4.4.2. **Q-.** Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition. Publications posted with errors or omissions that did not jeopardize mission accomplishment.

3.2.4.4.3. **U.** Failed to possess all required personal/professional equipment or to maintain equipment in serviceable condition. Publications posted with errors or omissions that could have jeopardized mission accomplishment.

**3.2.4.5. Area 5--Pre-Takeoff:**

3.2.4.5.1. **Q.** Established and adhered to start engine, block/taxi, and takeoff times as required, to ensure thorough preflight, crew/passenger briefings, etc. Performed all checks and procedures prior to takeoff IAW checklists and directives. Fully aware of aircraft's readiness for flight.

3.2.4.5.2. **Q-.** Performed pre-takeoff procedures with errors or omissions that did not jeopardize mission accomplishment.

3.2.4.5.3. **U.** Did not use the checklist or omitted major item(s). Failed to accurately determine readiness of aircraft for flight. Performed pre-takeoff procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.2.4.6. Area 6--Air Traffic Control (ATC) Clearance:**

3.2.4.6.1. **Q.** Promptly complied with all controlling agency instructions and made required reports.

3.2.4.6.2. **Q-.** Slow to comply with controlling agency instructions or unsure of reporting requirements.

3.2.4.6.3. **U.** Accepted clearance that could not be complied with, or did not understand clearance. Did not comply with clearance or make required reports.

**3.2.4.7. Area 7--Takeoff:**

3.2.4.7.1. **Q.** Aircraft control was smooth throughout takeoff. Performed takeoff IAW flight manual procedures.

3.2.4.7.1.1. Airspeed -5/+10 knots.

3.2.4.7.1.2. Heading +/- 5 degrees.

3.2.4.7.2. **Q-.** Deviations from published procedures did not affect safety of flight. Control was rough or erratic. Hesitant in application of procedures/corrections.

3.2.4.7.2.1. Airspeed -5/+15 knots.

3.2.4.7.2.2. Heading +/- 10 degrees.

3.2.4.7.3. **U.** Liftoff potentially dangerous. Exceeded aircraft/systems limitations. Failed to establish proper climb attitude. Over-controlled the aircraft. Violated flight manual procedures or exceeded Q- limits.

**NOTE:**

Takeoffs may be evaluated on an initial takeoff, a taxiback, or a touch-and-go takeoff.

**3.2.4.8. Area 8--Departure/Climb (Standard Instrument Departure (SID)/Vector):**

3.2.4.8.1. **Q.** Performed departure as published/directed and complied with all instructions. Applied course/heading corrections promptly. Visually cleared the area and demonstrated appropriate procedural knowledge.

3.2.4.8.1.1. Crossing Intermediate.

3.2.4.8.1.1.1. Altitude +/- 100 feet.

3.2.4.8.1.2. Airspeed +/- 10 knots or +/- .04 Mach.

3.2.4.8.1.3. Course/Heading +/- 5 degrees (when assigned or specified).

3.2.4.8.2. **Q-.** Performed departure as published/directed and complied with all restrictions. Slow to apply course/heading corrections. Visually cleared the area, but slow in applying procedural knowledge.

3.2.4.8.2.1. Crossing Intermediate.

3.2.4.8.2.1.1. Altitude +/- 200 feet.

3.2.4.8.2.2. Airspeed +/- 15 knots or +/- .07 Mach.

3.2.4.8.2.3. Course/Heading +/- 10 degrees (when assigned or specified).

3.2.4.8.3. **U.** Failed to comply with published/directed departure instructions or exceeded Q- limits. Failed to visually clear the area. Lack of procedural knowledge resulted in a loss of situational awareness or could have jeopardized mission accomplishment.

**3.2.4.9. Area 9--Level Off:**

3.2.4.9.1. **Q.** Leveled off smoothly at specified altitude. Established proper cruise airspeed promptly. Visually cleared the area.

3.2.4.9.1.1. Altitude +/- 100 feet.

3.2.4.9.1.2. Course/Heading +/- 5 degrees.

3.2.4.9.2. **Q-**. Level off was slightly erratic. Some difficulty in maintaining proper altitude. Slow in establishing proper cruise airspeed. Visually cleared the area.

3.2.4.9.2.1. Altitude +/- 200 feet.

3.2.4.9.2.2. Course/Heading +/- 10 degrees.

3.2.4.9.3. **U**. Level off was erratic, exceeded Q- limits. Delayed excessively or failed to establish proper cruise airspeed. Failed to clear the area.

**3.2.4.10. Area 10--Cruise/Navigation:**

3.2.4.10.1. **Q**. Displayed knowledge of inertial navigation system (INS)/Global Positioning System Integrated Navigation System (GINS) operations/procedures. Ensured navigational aids (NAVAIDs) were properly tuned, identified, and monitored (when available). Aware of exact position at all times. Visually cleared the area.

3.2.4.10.1.1. Altitude +/-100 feet.

3.2.4.10.1.2. Airspeed +/- 5% or 5 knots, whichever is greater (not lower than selected min maneuver speed).

3.2.4.10.1.3. Course +/- 5 nautical miles (NM).

3.2.4.10.1.4. Heading +/- 5 degrees.

3.2.4.10.1.5. Point-to-Point +/- 2 miles.

3.2.4.10.2. **Q-**. Displayed knowledge of INS/GINS operations/procedures with errors or omissions that did not jeopardize mission accomplishment. Some deviations in tuning, identifying, and monitoring NAVAIDS. Had difficulty in establishing exact position. Visually cleared the area.

3.2.4.10.2.1. Altitude +/- 200 feet.

3.2.4.10.2.2. Airspeed +/- 10% or 10 knots, whichever is greater (not lower than selected min maneuver speed).

3.2.4.10.2.3. Course +/- 10 NM.

3.2.4.10.2.4. Heading +/- 10 degrees.

3.2.4.10.2.5. Point-to-Point +/- 4 miles.

3.2.4.10.3. **U**. Displayed major errors in INS/GINS operations/procedures that could have jeopardized mission accomplishment, or to the extent that position was unreliable. Exceeded Q- limits. Did not visually clear the area.

**3.2.4.11. Area 11--On Station Procedures:**

3.2.4.11.1. **Q**. Complete knowledge of on station procedures and requirements. Thorough knowledge of Retrograde, ROE, ATO, ACO, special instructions (SPINS), and theater operating procedures, if applicable.

3.2.4.11.1.1. Target ground speed +/- 50 knots (unless indicated airspeed (IAS) compromises flight safety).

3.2.4.11.1.2. Altitude +/- 100 feet.

3.2.4.11.1.3. Course +/- 5 NM.

3.2.4.11.2. **Q-**. Adequate knowledge of on station procedures and requirements with discrepancies that did not jeopardize mission accomplishment.

3.2.4.11.2.1. Target ground speed +/- 70 (unless IAS compromises flight safety).

3.2.4.11.2.2. Altitude +/- 200 feet.

3.2.4.11.2.3. Course +/- 10 NM.

3.2.4.11.3. **U**. Lack of on station procedural knowledge resulted in a loss of situational awareness or reduced mission effectiveness. Exceeded Q- limits. Accomplished changeover procedures with errors or omissions that could have jeopardized safety or mission accomplishment. Lack of knowledge of Retrograde, ROE, ATO, ACO, SPINS, and theater operating procedures, if applicable.

**3.2.4.12. Area 12--Inflight Checks:**

3.2.4.12.1. **Q**. Adhered to briefed/directed minimum fuel requirements IAW local directives and performed inflight checks as required. Ensured all systems were properly monitored.

3.2.4.12.2. **Q-**. Performed inflight checks with errors or omissions that did not jeopardize mission accomplishment.

3.2.4.12.3. **U**. Did not adhere to minimum fuel requirements, perform inflight checks, or monitor systems to a degree that an emergency condition could develop if allowed to continue. Errors or omissions could have jeopardized mission accomplishment.

**3.2.4.13. Area 13--Communications/Identification, Friend or Foe (IFF)/Selective Identification Feature (SIF):**

3.2.4.13.1. **Q**. Complete knowledge of and compliance with correct Communications/IFF/SIF procedures. Transmissions were concise with proper terminology. Complied with and acknowledged all controlling agency(ies) instructions.

3.2.4.13.2. **Q-**. Occasional deviations from correct procedures that required re-transmissions. Slow in initiating required actions. Transmissions contained excessive, extraneous matter, were not in proper sequence, or contained nonstandard terminology. Erroneous IFF/SIF codes utilized. Marginal knowledge of IFF/SIF equipment or special use codes.

3.2.4.13.3. **U**. Incorrect procedures or poor performance caused confusion and reduced mission effectiveness. Omitted required checks or procedures.

**3.2.4.14. Area 14--Unusual Attitudes (Simulator Only):**

3.2.4.14.1. **Q**. Recovery to level flight was smooth and positive. Used correct recovery procedures.

3.2.4.14.2. **Q-**. Slow to analyze attitude or erratic in recovery to level flight. Used correct recovery procedures.

3.2.4.14.3. **U**. Unable to determine attitude, or used improper recovery procedures.

**3.2.4.15. Area 15--Air Refueling:**



3.2.4.15.1. **Q.** Established and maintained proper refueling position. Aircraft control was positive and smooth. Complete knowledge of rendezvous and closure procedures.

3.2.4.15.1.1. Altitude +/- 100 feet (level off (L/O) to 1 mile).

3.2.4.15.1.2. Airspeed +/- 10 knots (L/O to 1/2 mile).

3.2.4.15.1.3. Contact Time 10 minutes/complete onload.

3.2.4.15.1.4. Not more than one inadvertent disconnect.

**NOTE:**

Contact time may be reduced (NLT 5 continuous minutes) if the examinee demonstrates the ability to maintain a smooth, stable receiver platform. Time spent performing air refueling envelope demonstration counts towards the 5 minute minimum.

3.2.4.15.2. **Q-.** Slow to recognize and apply needed corrections to establish and maintain proper refueling position. Aircraft control was not always positive and smooth, but adequate to maintain refueling position. Accomplished rendezvous and closure with errors or omissions that did not jeopardize safety of flight or the successful completion of air refueling.

3.2.4.15.2.1. Altitude +/- 200 feet (L/O to 1 mile).

3.2.4.15.2.2. Airspeed +/- 15 knots (L/O to 1/2 mile).

3.2.4.15.2.3. Contact Time: 10 minutes/complete onload.

3.2.4.15.2.4. Not more than three inadvertent disconnects.

3.2.4.15.3. **U.** Erratic or dangerous in the precontact/refueling position. Errors or omissions could have jeopardized safety of flight or the successful completion of air refueling. Exceeded Q- limits.

**NOTE:**

Copilots will be checked on performance of duties during rendezvous and refueling operations. Copilots will be able to establish and maintain a stable precontact position (approximately 5 minutes).

**3.2.4.16. Area 16--Holding:**

3.2.4.16.1. **Q.** Entry and holding procedures IAW applicable directives and remained within airspace limits.

3.2.4.16.1.1. Altitude +/- 100 feet.

3.2.4.16.1.2. Airspeed +/- 10 knots.

3.2.4.16.2. **Q-.** Improper entry and holding procedures but remained within airspace limits.

3.2.4.16.2.1. Altitude +/- 200 feet.

3.2.4.16.2.2. Airspeed +/- 15 knots.

3.2.4.16.3. **U.** Exceeded airspace or Q- limits.

**3.2.4.17. Area 17--Descent (Enroute/Published):**

3.2.4.17.1. **Q.** Performed descent as directed. Complied with all restrictions. Visually cleared flight path.

3.2.4.17.1.1. Altitude +/- 100 feet (level off).

3.2.4.17.1.2. Airspeed +/- 10 knots (if applicable).

3.2.4.17.1.3. Course/Heading +/- 5 degrees (when assigned or specified).

3.2.4.17.2. **Q-.** Performed descent as directed with deviations that did not jeopardize mission accomplishment or compromise safety. Visually cleared flight path, but slow to accomplish required checks.

3.2.4.17.2.1. Altitude +/- 200 feet (level off).

3.2.4.17.2.2. Airspeed +/- 15 knots (if applicable).

3.2.4.17.2.3. Course/Heading +/- 10 degrees (when assigned or specified).

3.2.4.17.3. **U.** Performed descent with major deviations that could have jeopardized mission accomplishment or compromised safety. Did not accomplish required checks. Failed to visually clear the flight path. Exceeded Q- limits.

**3.2.4.18. Area 18--Instrument Flight Rules (IFR) Traffic Pattern (Prior to Final Approach Fix (FAF)):**

3.2.4.18.1. **Q.** Procedures and checklist items required by the flight manual and applicable directives were accomplished. Followed controller instructions and complied with all restrictions. Made smooth and timely corrections.

3.2.4.18.1.1. Altitude +/- 100 feet.

3.2.4.18.1.2. Airspeed -5/+10 knots.

3.2.4.18.1.3. Course/Heading +/- 10 degrees.

3.2.4.18.1.4. Tactical Air Navigation (TACAN) Arc +/- 2 miles.

3.2.4.18.2. **Q-.** Procedures and checklist items required by the flight manual and applicable directives were accomplished with errors or omissions that did not jeopardize mission accomplishment. Slow or hesitant to follow controller's instructions. Over controlled slightly or occasionally slow in making corrections.

3.2.4.18.2.1. Altitude +/- 200 feet.

3.2.4.18.2.2. Airspeed -5/+20 knots.

3.2.4.18.2.3. Course/Heading +/- 15 degrees.

3.2.4.18.2.4. TACAN Arc +/- 3 miles.

3.2.4.18.3. **U.** Procedures and checklist items required by the flight manual and applicable directives were accomplished with errors or omissions that could have jeopardized mission accomplishment. Failed to comply with controller's instructions. Exceeded Q- limits.

**3.2.4.19. Area 19--Nonprecision Approach (FAF/Descent Point to Missed Approach Point):**

3.2.4.19.1. **Q.** Performed procedures as published/directed and IAW the flight manual. Made smooth and timely corrections. Arrived at minimum descent altitude (MDA) prior to or at

visual descent point (VDP) or Missed Approach Point. Position would have permitted safe landing.

3.2.4.19.1.1. Altitude -0/+100 feet (after reaching MDA and prior to VDP/MDA).

3.2.4.19.1.2. Airspeed -5/+10 knots.

3.2.4.19.1.3. Course/Heading +/- 5 degrees or less than half scale course deviation indicator (CDI) deflection.

3.2.4.19.1.4. Computed/adjusted timing to determine Missed Approach Point (when applicable).

3.2.4.19.2. **Q-** Performed procedures with deviations that did not jeopardize mission accomplishment or compromise safety. Slow to make corrections. Arrived at MDA prior to or at VDP or Missed Approach Point. Position would have permitted safe landing.

3.2.4.19.2.1. Altitude -50/+100 feet (after reaching MDA and prior to Missed Approach Point).

3.2.4.19.2.2. Airspeed -5/+15 knots.

3.2.4.19.2.3. Course/Heading +/- 10 degrees or less than full scale CDI deflection.

3.2.4.19.2.4. Computed/adjusted timing to determine Missed Approach Point (when applicable).

3.2.4.19.3. **U.** Performed procedures with major deviations. Erratic corrections. Exceeded Q- limits. Did not arrive at MDA prior to or at missed approach point. Position would not have permitted safe landing. Failed to compute or adjust timing to determine Missed Approach Point.

**3.2.4.20. Area 20--Precision Approach Radar (PAR) (Descent Point to Decision Height (DH)):**

3.2.4.20.1. **Q.** Performed procedures as directed and IAW the flight manual. Smooth and timely response to controller's instructions. Established initial glide path and adjusted for deviations throughout the approach. Complied with decision height. Position would have permitted a safe landing.

3.2.4.20.1.1. Airspeed -5/+10 knots.

3.2.4.20.1.2. Heading within 5 degrees of controller's instructions.

3.2.4.20.2. **Q-** Performed procedures with some deviations. Slow to respond to controller instructions. Slow to establish initial glide path and adjust for deviations throughout the approach. Complied with decision height. Position would have permitted a safe landing.

3.2.4.20.2.1. Airspeed -5/+15 knots.

3.2.4.20.2.2. Heading within 10 degrees of controller's instructions.

3.2.4.20.3. **U.** Performed procedures with major deviations. Erratic corrections. Exceeded Q- limits. Did not comply with decision height and/or position would not have permitted a safe landing.

**3.2.4.21. Area 21--Precision Approach-Instrument Landing System (ILS) (Glide Path Interception to DH):**

3.2.4.21.1. **Q.** Performed procedures as published and IAW the flight manual. Smooth and timely corrections to course and glide slope. Complied with decision height. Position would have permitted a safe landing.

3.2.4.21.1.1. Airspeed -5/+10 knots.

3.2.4.21.1.2. Glide Slope within 1 dot.

3.2.4.21.1.3. Course within 1 dot.

3.2.4.21.2. **Q-.** Performed procedures with deviations that did not affect mission accomplishment or compromise safety. Slow to make corrections. Complied with decision height. Position would have permitted a safe landing.

3.2.4.21.2.1. Airspeed -5/+15 knots.

3.2.4.21.2.2. Glide Slope within 2 dots above and 1 below.

3.2.4.21.2.3. Course within 2 dots deflection.

3.2.4.21.3. **U.** Performed procedures with major deviations. Erratic corrections. Exceeded Q- limits. Did not comply with decision height and/or position would not have permitted a safe landing.

**3.2.4.22. Area 22--Missed Approach:**

3.2.4.22.1. **Q.** Executed missed approach as published/ directed. Completed all procedures IAW the flight manual.

3.2.4.22.1.1. Level Off Altitude +/- 100 feet.

3.2.4.22.1.2. Airspeed -5/+15 knots.

3.2.4.22.1.3. Course/Heading +/- 5 degrees.

3.2.4.22.1.4. TACAN Arc +/- 2 miles.

3.2.4.22.2. **Q-.** Executed missed approach with deviations that did not jeopardize mission accomplishment or compromise safety. Slow to comply with published procedures, controller instructions or flight manual procedures.

3.2.4.22.2.1. Level Off Altitude +/- 200 feet.

3.2.4.22.2.2. Airspeed -5/+20 knots.

3.2.4.22.2.3. Course/Heading +/- 10 degrees.

3.2.4.22.2.4. TACAN Arc +/- 3 miles.

3.2.4.22.3. **U.** Executed missed approach with major deviations that could have jeopardized mission accomplishment or compromised safety. Failed to comply with published procedure, controller's instructions or flight manual procedures.

**3.2.4.23. Area 23--Visual Flight Rules (VFR) Traffic Pattern (Prior to Base Turn):**

3.2.4.23.1. **Q.** Performed traffic patterns IAW the flight manual and local directives. Aircraft control was positive and smooth. Constantly cleared area of intended flight.

3.2.4.23.1.1. Altitude +/- 100 feet.

3.2.4.23.1.2. Airspeed -5/+15 knots.

3.2.4.23.1.3. Downwind +/- 1 mile of recommended.

3.2.4.23.2. **Q-.** Performed traffic patterns with some deviations to procedures outlined in the flight manual and local directives. Aircraft control was not consistently positive and smooth, but safe. Adequately cleared area of intended flight.

3.2.4.23.2.1. Altitude +/- 200 feet.

3.2.4.23.2.2. Airspeed -5/+20 knots.

3.2.4.23.2.3. Downwind within airport traffic area.

3.2.4.23.3. **U.** Traffic patterns not performed IAW procedures outlined in the flight manual and local directives. Erratic aircraft control. Did not clear the area of intended flight. Exceeded Q-limits.

**3.2.4.24. Area 24--VFR Approach (Base, Final Turn, Final Approach):**

3.2.4.24.1. **Q.** Performed the turn and final approach IAW procedures outlined in the flight manual and local directives. Aircraft control was smooth and positive. Constantly cleared area of intended flight. Did not over/undershoot final approach.

3.2.4.24.1.1. Airspeed -5/+15 knots.

3.2.4.24.1.2. Final Approach +/- 1 mile of recommended length.

3.2.4.24.2. **Q-.** Performed the turn to final and final approach with some deviations to procedures out-lined in the flight manual and local directives. Aircraft control was not consistently smooth and positive, but safe. Adequately cleared area of intended flight. Over/undershot final approach slightly.

3.2.4.24.2.1. Airspeed -5/+20 knots.

3.2.4.24.2.2. Final Approach +/- 1 mile of recommended length.

3.2.4.24.3. **U.** Turn to final/final approach not performed IAW procedures outlined in the flight manual and local directives. Erratic aircraft control. Over/undershot final approach by a wide margin. Exceeded Q- limits.

**3.2.4.25. Area 25--Landing:**

3.2.4.25.1. **Q.** Performed landing IAW procedures outlined in the flight manual and local directives. Touchdown was within desired area, on centerline.

3.2.4.25.2. **Q-.** Performed landing with deviations to procedures outlined in the flight manual and local directives. Touchdown was within desired area. Did not land on centerline.

3.2.4.25.3. **U.** Landings not IAW procedures outlined in the flight manual and local directives. Exceeded Q- limits.

**3.2.4.26. Area 26--Simulated Engine(s) Out Pattern/Landing:**

3.2.4.26.1. **Q.** Performed prelanding checks, traffic pattern, approach/landing IAW procedures outlined in the flight manual, checklist, and other directives. Aircraft control was positive and smooth. Touched down within desired area.

3.2.4.26.1.1. Pattern Altitude +/- 100 feet.

3.2.4.26.1.2. Airspeed -5/+15 knots.

3.2.4.26.2. **Q-.** Procedural errors were made during prelanding checks, traffic pattern, approach/ landing which did not affect safety. Landed left or right of centerline. Touchdown was within desired area.

3.2.4.26.2.1. Pattern Altitude +/- 200 feet.

3.2.4.26.2.2. Airspeed -5/+20 knots.

3.2.4.26.3. **U.** Pattern poorly flown. Failed to recognize and apply corrections to avoid over/undershoots. Did not comply with procedures outlined in the flight manual, checklist, and other directives. Exceeded Q- limits.

**3.2.4.27. Area 27--Simulated Engine(s) Out Go-Around:**

3.2.4.27.1. **Q.** Initiated and performed go-around promptly IAW the flight manual. Acquired and maintained a positive climb.

3.2.4.27.1.1. Climb Airspeed -5/+15 knots.

3.2.4.27.1.2. Course/Heading +/- 10 degrees.

3.2.4.27.2. **Q-.** Slow or hesitant to initiate go-around. Procedural errors did not affect safety. Acquired and maintained a positive climb.

3.2.4.27.2.1. Climb Airspeed -5/+20 knots.

3.2.4.27.2.2. Course/Heading +/- 15 degrees.

3.2.4.27.3. **U.** Did not initiate go-around procedures when appropriate or directed. Applied unsafe or incorrect procedures. Exceeded Q- limits.

**3.2.4.28. Area 28--After Landing:**

3.2.4.28.1. **Q.** Accomplished after landing checks and aircraft taxi procedures IAW the flight manual and applicable directives. Recorded all data accurately as required.

3.2.4.28.2. **Q-.** Accomplished after landing checks and aircraft taxi procedures with errors or omissions that did not jeopardize safety.

3.2.4.28.3. **U.** Accomplished after landing checks and aircraft taxi procedures with errors or omissions that could have jeopardized safety. Recorded data inaccurately or failed to record data.

**3.2.4.29. Area 29--Emergency Procedures (BOLD FACE) (CRITICAL):**

3.2.4.29.1. **Q.** Correct, immediate response.

3.2.4.29.2. **U.** Incorrect sequence, unsatisfactory response, or unsatisfactory performance of corrective action.

3.2.4.30. **Areas 30 through 43** will use the following criteria. They may be accomplished in the flight simulator or discussed before, during, or after flight. Systems Operation (Normal/Emergency):

3.2.4.30.1. **Q.** Satisfactory knowledge of systems ensuring operation within prescribed limits and diagnosis of problems. Explained proper corrective action for each type of malfunction. Effectively used checklist and/or available aids.

3.2.4.30.2. **Q-.** Knowledge of systems operating limits were marginal in some cases. Slow to analyze problem or apply proper corrective action. Did not effectively use checklist and/or available aids.

3.2.4.30.3. **U.** Unsatisfactory knowledge of systems. Unable to analyze problem or take corrective action. Did not use checklist and/or available aids.

3.2.4.30.4. Area 30--Electrical.

3.2.4.30.5. Area 31--Hydraulic/Pneudraulic.

3.2.4.30.6. Area 32--Air Conditioning/Bleed Air.

3.2.4.30.7. Area 33--Pressurization.

3.2.4.30.8. Area 34--Electronic Cooling.

3.2.4.30.9. Area 35--Engine/Engine Systems.

3.2.4.30.10. Area 36--Fuel.

3.2.4.30.11. Area 37--Ice/Rain Protection.

3.2.4.30.12. Area 38--Auxiliary Power Unit (APU)/APU Systems.

3.2.4.30.13. Area 39--Oxygen/Lighting Equipment.

3.2.4.30.14. Area 40--Landing Gear/Wheels/Brakes.

3.2.4.30.15. Area 41--Flight Controls.

3.2.4.30.16. Area 42--Fire Protection/Extinguishing.

3.2.4.30.17. Area 43--Instruments/Communications/INS.

3.2.4.30.18. **Area 44--Airmanship (CRITICAL):**

3.2.4.30.18.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

3.2.4.30.18.2. **Q-.** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.

3.2.4.30.18.3. **U.** Decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised. Regulations/directives were intentionally violated.

3.2.4.31. **Area 45--Safety (CRITICAL):**

3.2.4.31.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.2.4.31.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment. Did not adequately clear flight path. Operated the aircraft in a dangerous manner.

**3.2.4.32. Area 46--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.2.4.32.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.2.4.32.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.2.4.32.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

**3.2.4.33. Area 47--Documentation:**

3.2.4.33.1. **Q.** All required forms, reports, and logs were complete and accurate IAW applicable directives.

3.2.4.33.2. **Q-.** Errors, omissions, or deviations caused some information to be omitted or incorrectly reported.

3.2.4.33.3. **U.** Major information or events omitted or reported incorrectly which affected mission accomplishment or reconstruction of the mission.

3.2.4.34. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

3.2.4.34.1. **Area 48--Instructional Ability.**

3.2.4.34.2. **Area 49--Briefings/Critique.**

3.2.4.34.3. **Area 50--Demonstration and Performance.**

**Table 3.1. Consolidated Performance Data Limits.**

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Field Pressure Altitude	+/- 200 ft	+/- 500 ft
Outside Air Temperature	+/- 3 degrees	+/- 5 degrees
Power Setting (Exhaust Pressure Ratio (EPR))	+/- .01	+/- .02
Takeoff Stabilizer Setting (Units)	+/- .2	+/- .4
All Computed Speeds	+/- 2 kts	+/- 4 kts
All Computed Distances	+/- 400 ft	+/- 600 ft
All Computed Gross Weights	+/- 2000 lbs	+/- 5000 lbs
Takeoff/Landing Center of Gravity (COG)	+/- .5%	+/- 1.0%



**Table 3.2. Pilot/Copilot Evaluation Matrix.**

EVALUATION AREAS	QUAL	INSTR	INSTM	MISSION
1. Mission Planning	R		R	R
2. Take Off and Landing Data (CRITICAL)	R		R	R
3. Briefings/Debriefings	R		R	R
4. Permission Requirements	R		R	R
5. Pre-Takeoff	R		R	R
6. ATC Clearance	R		R	R
7. Takeoff	R		R	
8. Departure/Climb (SID/Vector)	R		R	
9. Level Off	R		R	
10. Cruise/Navigation	R		R	R
11. On Station Procedures				R
12. Inflight Checks	R		R	R
13. Communications/IFF/SIF	R		R	R
14. Unusual Attitudes (Simulator Only)			R	
15. Air Refueling	R			
16. Holding			R	
17. Descent (En route/Published)	R		R	
18. IFR Traffic Pattern (Prior to FAF)			R	
19. Nonprecision Approach (FAF/Descent Point to Missed Approach Point)			R	
20. Precision Approach (PAR) (Descent Point to DH)			Notes 1 & 2	
21. Precision Approach (ILS) (Glide Path Interception to DH)			Note 2	
22. Missed Approach	R		R	
23. VFR Traffic Pattern (Prior to Base Turn)	R			
24. VFR Approach (Base, Final Turn, Final Approach)	R			
25. Landing	R		R	
26. Simulated Engine(s) Out Pattern/Landing	R (Note 3)			
27. Simulated Engine(s) Out Go-Around	R (Note 3)			
28. After Landing	R		R	R
29. Emergency Procedures (BOLD FACE) (CRITICAL)	R		R	R
30. Electrical	R			R
31. Hydraulic/Pneudraulic	R			R
32. Air Conditioning/Bleed Air	R			R
33. Pressurization	R			R
34. Electronic Cooling	R			R

EVALUATION AREAS	QUAL	INSTR	INSTM	MISSION
35. Engine/Engine Systems	R			R
36. Fuel	R			R
37. Ice/Rain Protection	R			R
38. APU/APU System	R			R
39. Oxygen/Lighting Equipment	R			R
40. Landing Gear/Wheels/Brakes	R			R
41. Flight Controls	R			R
42. Fire Protection/Extinguishing	R			R
43. Instruments/Communications/INS	R			R
44. Airmanship (CRITICAL)	R	R	R	R
45. Safety (CRITICAL)	R	R	R	R
46. Aircrew Discipline/Crew Coordination (CRITICAL)	R	R	R	R
47. Documentation	R	R	R	R
48. Instructional Ability		R		
49. Briefings/Critique		R		
50. Demonstration and Performance		R		
<b>R</b> = Required evaluation item.				
<b>Notes:</b> 1. If facilities are available, both types of precision approaches must be evaluated. 2. A nonprecision and a precision approach must be accomplished for instrument evaluations. 3. PACAF copilots are exempt from being evaluated on simulated 3-engine maneuvers required for flight or simulator checkrides until the fourth month after being certified to perform simulated 3-engine maneuvers.				

### 3.3. Navigator Qualification and Mission Flight Evaluations:

3.3.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of a Navigator (N) and Instructor Navigator (IN).

3.3.2. Initial Mission/Qualification, Mission/Qualification, and Initial Instructor Qualification will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. Additionally, Initial Instructor Qualification examinees must demonstrate Area 10, Navigation Computer system (NCS) Operation (Inflight Alignment) and Area 20, Air Refueling.

3.3.3. A manual flight plan will be used for Initial Qualification and Initial Instructor evaluations. A computer flight plan may be used for recurring Mission/Qualification evaluations.

3.3.4. **Evaluation Objectives.** The examinee must demonstrate the ability to navigate the E-3 aircraft safely and effectively IAW appropriate flight manuals, directives, and operating procedures. Actual position of the aircraft must be maintained utilizing the most reliable navigation aids. In addi-

tion, the examinee will demonstrate qualification in all navigation systems (as applicable) in support of E-3 mission requirements.

**3.3.5. Ground Phase Requisites.** The following requisites are required in addition to paragraph 1.5. for qualification and mission evaluations:

3.3.5.1. Instrument Refresher Course (IRC).

3.3.5.2. Instrument Examination.

3.3.5.3. Emergency Procedures Evaluation (EPE).

**3.3.6. Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

**3.3.6.1. Area 1--Mission Planning:**

3.3.6.1.1. **Q.** Contributed to overall mission planning. Checked factors applicable to the flight (mission timing, air refueling information, orbit location, ATO, weather, NOTAMs, flight planning publications, etc.) to determine mission requirements, and departure, en route, and terminal procedures. Selected the best route with consideration to altitude, airspeed, weather conditions, terrain, restricted areas, and location of emergency and alternate airfields. Planned alternative courses of action as appropriate. Read and initialed for all items in the FCIF and read files.

3.3.6.1.2. **Q-.** Knowledge of publications available for mission planning was adequate; however, only minimum information necessary to ensure a safe flight was checked. Did not fully comply with local directives.

3.3.6.1.3. **U.** Displayed inadequate knowledge of, or failed to check factors applicable to the flight. Used poor mission planning techniques which could have resulted in an unsuccessful mission. Failed to comply with local directives. Failed to read and initial for all items in the FCIF and read files.

**NOTE:**

NOTAMs will be checked on the day of the flight.

**3.3.6.2. Area 2--Flight Plan/Charts:**

3.3.6.2.1. **Q.** Selected current navigation charts of proper scale and type for the mission to be flown. Charts reflected special use airspace where required, orbit airspace, air refueling track, emergency and alternate airfields, and other data as required by mission directives for the planned route of flight. All coordinates were transcribed correctly. Route was plotted with errors that did not exceed 5 NM. Flight plan was completed within the following limits:

3.3.6.2.1.1. Heading +/- 5 degrees. No more than one error was made in transcribing coordinates. Route plotting errors did not exceed 10 NM.

3.3.6.2.1.2. Time +/- 2 minutes

3.3.6.2.2. **Q-.** No more than four errors exceeded Q limits and no error exceeded the following limits

3.3.6.2.2.1. Heading +/- 10 degrees.

3.3.6.2.2.2. Time +/- 4 minutes.

3.3.6.2.3. **U.** Flight plan or chart was not completed, or contained major errors or omissions that could have affected mission accomplishment. Selected improper or obsolete charts. Route plotting errors exceeded Q- limits.

**NOTES:**

1. Failure to check the Computer Flight Plan (CFP) when used for current route of flight will result in an UNQUALIFIED grade in this area.
2. Errors that occur as a result of the previous error will not be considered when applying the limits of the grading criteria.

**3.3.6.3. Area 3--Briefings/Debriefings:**

3.3.6.3.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives. Ensured the aircrew was thoroughly briefed on all navigational aspects of the mission.

3.3.6.3.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings and/or ensured the aircrew was thoroughly briefed on all navigational aspects of the mission with errors or omissions that did not jeopardize mission accomplishment.

3.3.6.3.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment. Failed to ensure the aircrew was thoroughly briefed on all navigational aspects of the mission.

**3.3.6.4. Area 4--Prepermission Requirements:**

3.3.6.4.1. **Q.** Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.3.6.4.2. **Q-.** Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.3.6.4.3. **U.** Failed to possess all personal/professional equipment or to maintain equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.3.6.5. Area 5--Preflight Inspections:**

3.3.6.5.1. **Q.** Completed preflight inspections prior to engine start time IAW applicable checklists and directives. Demonstrated satisfactory knowledge of the status, operation, and use of aircraft systems and life support equipment. Recognized evidence of malfunctions and took proper corrective actions. Was knowledgeable of, and checked AFTO Forms 781, **Aircrew/Mission Flight Data Document**.

3.3.6.5.2. **Q-**. Accomplished preflight inspections prior to engine start time with errors or omissions that did not jeopardize mission accomplishment or cause late takeoff. Displayed adequate knowledge of equipment status, operation, and use; however, was uncertain of malfunctions and appropriate corrective action. Displayed limited knowledge of information contained in the AFTO Forms 781.

3.3.6.5.3. **U**. Accomplished preflight inspections prior to engine start time with errors or omissions that could have affected mission accomplishment or caused late takeoff. Displayed inadequate knowledge of system or equipment status, operation, or use. Failed to recognize malfunctions or take corrective action. Did not use checklist for one or more preflight checks.

**NOTE:**

NCS/INS/GINS malfunction recognition/corrective action will be graded under either Areas 8, 9, or 10, as appropriate.

**3.3.6.6. Area 6--Before Takeoff:**

3.3.6.6.1. **Q**. Completed all required checks. Monitored and copied clearance, and if applicable, coordinated with the pilots on the procedures to be followed. Cross-checked navigational aids and NCS/INS/GINS position; made corrections/updates when necessary. Coordinated with pilot on INS/GINS configuration during the departure.

3.3.6.6.2. **Q-**. Accomplished Before Takeoff procedures with minor procedural deviations which did not result in delay or misunderstanding of departure procedures.

3.3.6.6.3. **U**. Made major errors, omissions, or deviations in completing required checks. Was not prepared for taxi or take off. Was not aware of ATC clearance.

**3.3.6.7. Area 7--Departure:**

3.3.6.7.1. **Q**. Monitored headings, altitudes, and aircraft position throughout the departure. Used a SID (if applicable) and had local area chart of Operational Navigation Chart (ONC) or larger scale immediately available for reference (i.e. out on the table). Monitored terrain/obstacle clearance. Provided headings, ETAs, and other appropriate information in a timely manner. Monitored appropriate radios for departure instructions to ensure compliance with ATC clearance. Provided updated information when a delay or the clearance caused a change in the planned departure.

3.3.6.7.2. **Q-**. Monitored headings, altitudes, position, and terrain clearance. Displayed difficulty in providing headings, estimated time of arrival (ETA), or other appropriate information. Performance did not degrade mission accomplishment or compromise flight safety. Monitored SID (if applicable) but did not have local area chart of ONC or larger scale immediately available for reference.

3.3.6.7.3. **U**. Did not monitor headings, altitudes, or terrain clearance during the departure. Was not aware of aircraft position and was unable to provide updated information when required. Did not use a SID or local area chart of ONC or larger scale.

**3.3.6.8. Area 8--NCS/GINS Operations (Normal):**

3.3.6.8.1. **Q**. Demonstrated satisfactory knowledge and understanding of NCS/GINS components. Recognized malfunctions and took appropriate corrective actions. Effectively used

NCS/GINS navigational information in a precise and accurate manner. Monitored NCS/GINS aiding/position to ensure accurate positional and associated information transmitted to mission equipment.

3.3.6.8.2. **Q-.** Displayed limited understanding of malfunctions and/or appropriate corrective action; no further system degradation resulted from corrective action taken. Knowledge of NCS/GINS components was adequate, but degraded full, effective use of NCS/GINS navigational information.

3.3.6.8.3. **U.** Failure to recognize malfunctions and/or take appropriate corrective action resulted in system degradation. Inadequate knowledge of NCS/GINS components seriously degraded effective use of NCS/GINS navigational information.

**3.3.6.9. Area 9--NCS Operations (INS Only Operation)/Degraded GINS Operations:**

3.3.6.9.1. **Q.** Demonstrated satisfactory knowledge and understanding of INS/GINS components and operation. Recognized malfunctions and initiated appropriate corrective actions. Monitored positional/aiding (GINS) accuracy and performed updates, as required, to ensure accurate information for the mission equipment. Knowledge/preparation was sufficient to maintain orbit pattern without NCS pattern steering. When required, accomplished "split mode" procedures properly.

3.3.6.9.2. **Q-.** Displayed limited understanding/knowledge of INS/GINS components, operation, malfunctions and/or appropriate corrective actions. Corrective action taken did not further degrade INS operation.

3.3.6.9.3. **U.** Failed to recognize malfunctions and/or take appropriate actions. Inadequate knowledge of NCS/GINS components seriously degraded effective use of INS/GINS navigation information. Corrective action taken was inappropriate and further degraded INS/GINS operation. Failure to update or correctly interpret INS/GINS data resulted in excessive position errors.

**3.3.6.10. Area 10--NCS/GINS Operations (Inflight Alignment):**

3.3.6.10.1. **Q.** Accomplished initialization and Inflight Alignment (IFA) sequencing IAW existing checklists and applicable directives. Recognized equipment limitations and/or limited Omega/Satellite (GINS) environment and provided corrections/updates in a timely manner to ensure alignment completion. Completed IFA, barring equipment malfunctions, in time to support the mission. Recognized and performed needed manual position updates. Fully understood IFA sequencing.

3.3.6.10.2. **Q-.** Displayed limited understanding of malfunctions and/or appropriate corrective action; no further system degradation resulted from corrective action taken. Knowledge of NCS/GINS components adequate, but degraded full, effective use of NCS/GINS navigational information. Crosscheck of one or more navigational information (position, true heading (TH), and groundspeed (GS)) omitted prior to using INS/inertial navigation unit (INU) aligned in flight.

3.3.6.10.3. **U.** Induced a position error that resulted in degraded positional accuracy or IFA failure.

**NOTE:**

Failure to crosscheck any navigational information (position, TH, GS, or cross track (XTK)/track error (TKE)) before attempting to couple the autopilot will result in an UNQUALIFIED grade in this area.

**3.3.6.11. Area 11--Cruise/On Station:**

3.3.6.11.1. **Q.** Cruise/on station speeds and altitudes used were accomplished effectively to support mission requirements. Level off, on/off station position, and heading checks completed in a timely manner (i.e., level off fix completed within 5 minutes after level off, heading check completed not more than 5 minutes after level off fix, and on/off station fixes completed within 5 minutes, barring equipment malfunctions, weather deviation, emergencies, or mission replanning).

3.3.6.11.2. **Q-.** Speeds and altitudes used were accomplished with minor errors that did not affect safety of flight or mission accomplishment. Level off, on/off station position, and heading checks were completed with only minor errors or outside of Q limits.

3.3.6.11.3. **U.** Improper speeds and/or altitudes used could have affected flight safety or mission accomplishment. Omission of one or more of the following; level off, on/off station position, and heading checks.

**3.3.6.12. Area 12--General Navigation:**

3.3.6.12.1. **Q.** At no time allowed the airplane to deviate more than 5 NM from the planned/replanned course or to deviate outside the refueling track ATC assigned/protected lateral airspace. INS/GINS waypoints were kept updated and no unscheduled turns caused by erroneous data.

3.3.6.12.2. **Q-.** At no time allowed the airplane to deviate more than 10 NM from the planned/replanned course. INS/GINS waypoints were updated and no more than one unscheduled turn was caused by erroneous data.

3.3.6.12.3. **U.** Allowed airplane to deviate outside of the refueling track or ATC assigned/protected lateral airspace.

**3.3.6.13. Area 13--Radio Navigation:**

3.3.6.13.1. **Q.** Used best available radio aids to monitor NCS/INS/GINS position. Verified charted location of stations used in calculating/plotting fixes. Obtained, evaluated, and used radio navigation data within 2 NM.

3.3.6.13.2. **Q-.** Committed errors in the use of available radio aids that did not adversely affect monitoring NCS/INS/GINS position. Made minor errors in verifying charted location of stations used in calculating/plotting fixes. Fixes used to upgrade/monitor NCS/INS/GINS position did not exceed 4 NM position error.

3.3.6.13.3. **U.** Unsatisfactory techniques or procedures in obtaining, evaluating, and using available radio aids adversely affected monitoring NCS/INS/GINS position. Failed to verify charted location of stations used in calculating/plotting fixes. Fixes used to update/monitor NCS/INS/GINS position exceed 4 NM position error.

**3.3.6.14. Area 14--Weather Radar Operation:**

3.3.6.14.1. **Q.** Demonstrated satisfactory knowledge and understanding of radar equipment. Effectively used radar to avoid weather, and to support air refueling operations and traffic avoidance. Satisfactory demonstration/knowledge of thunderstorm avoidance.

3.3.6.14.2. **Q-.** Deviations in use of radar degraded effective radar use for weather, or in support of traffic avoidance or air refueling operations; flight safety was not jeopardized.

3.3.6.14.3. **U.** Deviations in use of radar prevented effective use in weather or traffic avoidance and/or air refueling operations; flight safety could have been jeopardized, or air refueling operations could have been significantly delayed.

**3.3.6.15. Area 15--Celestial Navigation:**

3.3.6.15.1. **Q.** Used satisfactory techniques in obtaining, evaluating, and using celestial data. Accomplished timely computations with no significant errors or omissions. Observed and plotted celestial line of positions (LOPs)/fixes within 10 NM from the NCS/GINS position. When necessary, observed and calculated a celestial heading check within one and a half degrees.

3.3.6.15.2. **Q-.** Excessive time devoted to celestial computations resulted in degraded inflight pacing, however, possessed adequate knowledge of celestial procedures and use of sextant. Observed and plotted celestial LOPs/fixes within 10 to 15 NM. When necessary, observed and calculated a celestial heading check within 3 degrees.

3.3.6.15.3. **U.** Displayed inadequate knowledge of celestial procedures and/or use of sextant. Observed and plotted celestial LOPs/fixes exceeded 15 NM.

**3.3.6.16. Area 16--Pacing:**

3.3.6.16.1. **Q.** Established an even work flow achieving maximum use of available time. Stayed ahead of flight progress. Maintained a fixing schedule that ensured accurate and timely position fixes/reports. Position fixes/reports were not late by more than 2 minutes. Did not excessively overfly turn points (none by more than 1 minute). Quickly dealt with deviations from original flight plan.

3.3.6.16.2. **Q-.** Pacing was adequate, but occasionally worked behind the aircraft. Maintained accurate positions; however, made minor errors/omissions on the inflight log because of pacing. Fixes/reports were late by no more than 5 minutes. Overflow turn points by no more than 3 minutes; however, did not jeopardize flight safety or mission accomplishment.

3.3.6.16.3. **U.** Overall, pacing and fixing schedule was unsatisfactory. Worked behind the aircraft throughout most of the flight. Made major errors/omissions on in-flight log because of pacing. Did not always maintain accurate positions, and fixes/reports were late by more than 5 minutes. Overflow turn points by more than 3 minutes.

**3.3.6.17. Area 17--Mission Patterns:**

3.3.6.17.1. **Q.** Demonstrated satisfactory accomplishment or knowledge of alternate INS (waypoint only) and NCS/GINS orbit procedures. Selected and engaged proper steering pattern and lobe, and monitored orbit capture. Briefed pilot on anticipated aircraft maneuvers, and notified MCC on orbit capture.



3.3.6.17.2. **Q-** Made errors in selecting and engaging pattern steering or waypoint only orbit, resulting in considerable delay when entering orbit, and/or excessive maneuvering to capture the pattern. Failed to brief pilot when engaging pattern steering and/or notify MCC of orbit entry.

3.3.6.17.3. **U.** Selecting/engaging incorrect pattern or waypoint only orbit resulted in departing protected airspace. Insufficient knowledge or unsatisfactory accomplishment of alternate INS orbit procedures resulted in degraded mission radar operation.

**3.3.6.18. Area 18--Communications:**

3.3.6.18.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives. Transmissions were concise with proper terminology. Acknowledged and complied with all required instructions.

3.3.6.18.2. **Q-** Conducted communications selection or operated equipment with errors, omissions or delays that did not jeopardize mission accomplishment. Transmissions contained excessive, extraneous matter, were not in proper sequence, or employed nonstandard terminology.

3.3.6.18.3. **U.** Conducted communications selection or operated equipment with errors, omissions or delays that could have jeopardized mission accomplishment. Incorrect procedures or poor performance caused confusion and reduced mission effectiveness.

**3.3.6.19. Area 19--Flight Records:**

3.3.6.19.1. **Q.** Navigator's chart, inflight log, and all other required forms were complete, presenting an accurate and detailed history of the route of flight from takeoff to landing. Entire flight could be reconstructed from information contained in these forms.

3.3.6.19.2. **Q-** Only minor errors/omissions were made on the chart or log; however, the route of flight could generally be reconstructed. Other required records were incomplete or slightly inaccurate; however, they could be used effectively.

3.3.6.19.3. **U.** Information recorded on the chart, log, and related forms was insufficient to reconstruct the flight, or required records were maintained in a manner that was unusable for their designed purpose.

**3.3.6.20. Area 20--Rendezvous and Air Refueling:**

3.3.6.20.1. **Q.** Effectively accomplished rendezvous and air refueling procedures. Planned optimum use/utilized all available rendezvous aids to conduct the rendezvous. Turn range and offset were correctly computed and cross-checked within 2 NM. Used proper procedure to identify tanker beacon. When required, recognized and effectively provided guidance to correct a potential overrun.

3.3.6.20.2. **Q-** Displayed limited knowledge and familiarity with checklists and/or rendezvous and air refueling procedures; however, knowledge was sufficient to successfully accomplish rendezvous and air refueling. Did not use all available aids, delaying/degrading successful rendezvous. Computations were in error by more than 2 NM, but did not exceed 5 NM. Slow to recognize overrun but did not excessively degrade/delay air refueling.

3.3.6.20.3. **U.** Displayed lack of knowledge and familiarity with the checklists and/or rendezvous and air refueling procedures to the extent that the rendezvous or air refueling was jeopardized or precluded. Did not attempt to acquire tanker beacon, or failed to accomplish positive aircraft identification resulting in an actual or attempted rendezvous with the wrong aircraft. Computations exceeded Q- criteria. Did not recognize or correct an overrun condition which resulted in confusion, delayed/degraded air refueling, or SEFE intervention.

**3.3.6.21. Area 21--Penetration, Approach, and Landing:**

3.3.6.21.1. **Q.** Monitored aircraft position and approach instructions. Furnished the pilot with headings, ETAs, and other information as required. Thoroughly understood approach and/or missed approach instructions and procedures. Monitored appropriate Flight Information Publication (FLIP) terminal approach plate and had a local area chart of ONC or larger scale immediately available (i.e., out on the table). Made required altitude calls, and ensured terrain/obstacle clearance.

3.3.6.21.2. **Q-.** Monitored aircraft position but did not monitor or understand approach and/or missed approach instructions/procedures. Omitted some altitude calls. Was slow in providing headings, ETAs, and other information when required. Monitored appropriate FLIP terminal approach plate, but did not have a local area chart of ONC or larger scale immediately available.

3.3.6.21.3. **U.** Failed to monitor aircraft position. Did not ensure terrain/obstacle clearance during approach. Failed to monitor appropriate FLIP terminal approach plate. Omitted numerous altitudes calls.

**3.3.6.22. Area 22--Post Flight:**

3.3.6.22.1. **Q.** Accomplished post flight duties IAW checklist and published procedures. Stowed gear properly. Entered all discrepancies accurately and concisely in AFTO Form 781. All debriefing requirements were completed.

3.3.6.22.2. **Q-.** Minor deviations were observed in equipment turnoff procedures which did not harm equipment. Discrepancies entered in AFTO Form 781 contained minor errors/omissions or caused confusion. Did not fully meet debriefing requirements.

3.3.6.22.3. **U.** Did not turn off or stow all navigational equipment. Used improper turnoff procedures which could have resulted in damage to equipment. Failed to enter discrepancies into AFTO Form 781 or attend required debriefings.

**3.3.6.23. Area 23--Emergency Procedures and Equipment:**

3.3.6.23.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated effectively with other crewmembers without delay.

3.3.6.23.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment which did not result in an unsafe situation or jeopardize mission accomplishment.

3.3.6.23.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crewmembers causing delays/ confusion which did or could have compromised the situation.

**3.3.6.24. Area 24--Airmanship (CRITICAL):**

3.3.6.24.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

3.3.6.24.2. **Q-.** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.

3.3.6.24.3. **U.** Decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised. Regulations/directives were intentionally violated.

**3.3.6.25. Area 25--Safety (CRITICAL):**

3.3.6.25.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.3.6.25.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.3.6.26. Area 26--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.3.6.26.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.3.6.26.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, and/or delay.

3.3.6.26.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.3.6.27. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph [2.4.](#) of this instruction.

3.3.6.27.1. **Area 27--Instructional Ability.**

3.3.6.27.2. **Area 28--Briefings/Critique.**

3.3.6.27.3. **Area 29--Demonstration and Performance.**

**Table 3.3. Navigator Evaluation Matrix.**

EVALUATION AREAS	QUAL	MISSION	INSTR
1. Mission Planning	R	R	
2. Flight Plan/Charts	R	R	
3. Briefings/Debriefings	R	R	
4. Prepermission Requirements	R	R	
5. Preflight Inspections	R	R	
6. Before Takeoff	R	R	
7. Departure	R	R	
8. NCS/GINS Operations (Normal)	R	R	

EVALUATION AREAS	QUAL	MISSION	INSTR
9. NCS Operations (INS Only Operation)/ Degraded GINS Operations		R	
10. NCS/GINS Operations (Inflight Alignment)		R	
11. Cruise/On Station	R	R	
12. General Navigation	R	R	
13. Radio Navigation	R	R	
14. Weather Radar Operation	R	R	
15. Celestial Navigation		R	
16. Pacing	R	R	
17. Mission Patterns		R	
18. Communications	R	R	
19. Flight Records	R	R	
20. Rendezvous and Air Refueling	R	R	
21. Penetration, Approach, and Landing	R	R	
22. Post Flight	R	R	
23. Emergency Procedures and Equipment	R	R	
24. Airmanship (CRITICAL)	R	R	
25. Safety (CRITICAL)	R	R	
26. Aircrew Discipline/Crew Coordination (CRITICAL)	R	R	
27. Instructional Ability			R
28. Briefings/Critique			R
29. Demonstration and Performance			R
<b>R</b> = Required evaluation area.			
<b>NOTE:</b> Instructor examinees must instruct (Demonstration/Performance) inflight alignment and/or air refueling.			

### 3.4. Flight Engineer Qualification And Mission Flight Evaluations:

3.4.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of a Flight Engineer (FE) and Instructor Flight Engineer (IFE).

3.4.1.1. Initial Mission/Qualification, Mission/Qualification, and Initial Instructor Qualification will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.4.1.2. DD Form 365-4, **Weight and Balance Clearance Form F**, may be evaluated during the written examination and will be accomplished utilizing the load adjuster or a MAJCOM approved method.

#### 3.4.2. Evaluation Objectives:

3.4.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely, effectively, and IAW appropriate flight manuals, directives and operating procedures.

3.4.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.4.3. **Ground Phase Requisites.** The following requisite is required in addition to paragraph 1.5.

3.4.3.1. Emergency Procedures Evaluation (EPE).

3.4.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas, within the limits specified in Table 3.4.

3.4.4.1. **Area 1--Mission Planning:**

3.4.4.1.1. **Q.** Checked all factors applicable to flight, fuel requirements/performance log, performance data, and DD Form 365-4. Had a thorough knowledge and application of information contained in performance charts. Read and initialed for all items in the FCIF and read files.

3.4.4.1.2. **Q-.** Errors or omissions in checking factors applicable to flight, or limited knowledge or errors made in application of information contained in performance charts did not jeopardize mission accomplishment.

3.4.4.1.3. **U.** Made major errors or omissions in checking factors applicable to the flight or on required forms applicable to the flight, or displayed inadequate knowledge in the use of performance data, that could have jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

3.4.4.2. **Area 2--Briefings/Debriefings:**

3.4.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.4.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment.

3.4.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment.

3.4.4.3. **Area 3--Premission Requirements:**

3.4.4.3.1. **Q.** Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.4.4.3.2. **Q-.** Possessed all required personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.4.4.3.3. **U.** Failed to possess all required personal/professional equipment or to maintain equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.4.4.4. Area 4--Takeoff and Landing Data (CRITICAL):**

3.4.4.4.1. **Q.** Computed required takeoff and landing data within tolerances of Column A, **Table 3.4.** Fully knowledgeable of takeoff and landing performance data.

3.4.4.4.2. **Q-.** Computed required takeoff and landing data within tolerances of Column B, **Table 3.4.** Limited knowledge of takeoff and landing data.

3.4.4.4.3. **U.** Unable to complete takeoff and landing data card. Computations exceeded tolerances of Column B, **Table 3.4.** Inadequate knowledge of performance data.

**3.4.4.5. Area 5--Weight and Balance (CRITICAL):**

3.4.4.5.1. **Q.** Demonstrated knowledge of aircraft limitations and weight and balance. Completed DD Form 365-4 accurately and legibly. Errors in percent of mean aerodynamic chord (MAC) or gross weight did not exceed tolerances of Column A, **Table 3.4.**

3.4.4.5.2. **Q-.** Demonstrated a limited knowledge of aircraft limitations and weight and balance. Completed a legible DD Form 365-4 with errors or omissions that did not affect safety. Errors in percent of MAC or gross weight did not exceed tolerances of Column B, **Table 3.4.**

3.4.4.5.3. **U.** Unable to complete DD Form 365-4. Errors in percent of MAC or gross weight exceeded tolerances of Column B, **Table 3.4.** Displayed inadequate knowledge of weight and balance directives.

**3.4.4.6. Area 6--Preflight Inspection:**

3.4.4.6.1. **Q.** Completed preflight inspection IAW applicable checklist and directives. Demonstrated satisfactory knowledge of the status, operation, and use of aircraft systems and life support equipment. Recognized evidence of malfunctions and took proper corrective actions. Was knowledgeable of, and checked AFTO Forms 781.

3.4.4.6.2. **Q-.** Accomplished preflight inspection with minor deviations. Displayed adequate knowledge of equipment status, operation, and use; however, was uncertain of malfunctions and appropriate corrective action. Displayed limited knowledge of information contained in AFTO Form 781.

3.4.4.6.3. **U.** Failed to accomplish or made major omissions in preflight inspections. Displayed inadequate knowledge of system or equipment status, operation, or use. Failed to recognize malfunctions or take corrective action. Failed to properly check and determine correct aircraft status in the AFTO Forms 781.

**3.4.4.7. Area 7--Before Start/Starting Engines:**

3.4.4.7.1. **Q.** Accomplished before start/starting engines procedures IAW applicable directives.

3.4.4.7.2. **Q-.** Accomplished before start/starting engines procedures with errors or omissions that did not jeopardize mission accomplishment.

3.4.4.7.3. **U.** Accomplished before start/starting engines procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.4.4.8. Area 8--Taxi/Before Takeoff:**

3.4.4.8.1. **Q.** Accomplished taxi/before takeoff procedures IAW applicable directives.

3.4.4.8.2. **Q-.** Accomplished taxi/before takeoff procedures with errors or omissions that did not jeopardize mission accomplishment.

3.4.4.8.3. **U.** Accomplished taxi/before takeoff procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.4.4.9. Area 9--Takeoff:**

3.4.4.9.1. **Q.** Power applied smoothly, continuously monitored aircraft/engine system to ensure compliance with all limitations.

3.4.4.9.2. **Q-.** Power applied in an acceptable manner. Deviations in monitoring of aircraft/engine systems did not exceed limitations.

3.4.4.9.3. **U.** Power applied in an unacceptable manner. Did not monitor engine/system indicators. Failed to comply with aircraft commander's instructions; did not accomplish required procedures as outlined in applicable flight manual.

**3.4.4.10. Area 10--After Takeoff and Climb:**

3.4.4.10.1. **Q.** Monitored aircraft/engine systems to ensure compliance with limitations. Maintained charted climb power.

3.4.4.10.2. **Q-.** Deviations in monitoring aircraft/engine systems; did not exceed limitations. Minor deviations in maintaining charted climb power.

3.4.4.10.3. **U.** Did not monitor engine/systems indicators; actions performed inadequately. Major deviations in maintaining charted climb power. Did not accomplish required checks and procedures.

**3.4.4.11. Area 11--Cruise/On Station:**

3.4.4.11.1. **Q.** Cruise data and fuel endurance computations were accurate and updated at timely intervals.

3.4.4.11.2. **Q-.** Cruise data and fuel endurance computations reflected procedural/mathematical errors or omissions.

3.4.4.11.3. **U.** Inadequate knowledge of procedures. Required checks/procedures were inadequate or not accomplished.

**3.4.4.12. Area 12--Air Refueling:**

3.4.4.12.1. **Q.** Fully knowledgeable of air refueling operations. Satisfactorily managed/monitored fuel systems and onload distribution.

3.4.4.12.2. **Q-.** Limited knowledge of air refueling operations. Deviations in management/monitoring of fuel system and onload distribution.

3.4.4.12.3. **U.** Inadequate knowledge/execution of air refueling operations resulted in gross deviations in management/monitoring of fuel system and onboard distribution.

3.4.4.12.4. Area 12 may be evaluated verbally or in a simulator under special circumstances either prior to or subsequent to the flight evaluation. Area 12 must be evaluated inflight for initial qualification training (IQT) examinees.

3.4.4.13. **Areas 13 through 26** will use the following criteria. They may be accomplished in the flight simulator or discussed before, during, or after the flight and prior to the critique. System's Operation (Normal/Emergency):

3.4.4.13.1. **Q.** Demonstrated proper management and operation of system. Identified and located system components, explained and related the function, and specified the limitations. Stated system status and effect on related systems.

3.4.4.13.2. **Q-.** Deviations in management or operation of system. Omission or deviation in identifying, locating, explaining, or relating system functions. Stated system status but, could not determine effect on related systems.

3.4.4.13.3. **U.** Inadequate knowledge of systems components, functions and limitations; improper management or operation of systems; unable to analyze simulated or actual malfunctions and applying corrective action; could not determine status of related systems.

3.4.4.14. Area 13--Electrical.

3.4.4.15. Area 14--Hydraulic/Pneudraulic.

3.4.4.16. Area 15--Air Conditioning/Bleed Air.

3.4.4.17. Area 16--Pressurization.

3.4.4.18. Area 17--Electronic Cooling.

3.4.4.19. Area 18--Engine/Engine Systems.

3.4.4.20. Area 19--Fuel.

3.4.4.21. Area 20--Ice/Rain Protection.

3.4.4.22. Area 21--APU/APU Systems.

3.4.4.23. Area 22--Oxygen/Lighting Equipment.

3.4.4.24. Area 23--Landing Gear/Wheels/Brakes.

3.4.4.25. Area 24--Flight Controls.

3.4.4.26. Area 25--Fire Detection/Extinguishing.

3.4.4.27. Area 26--Instruments/Communication/INS.

3.4.4.28. Area 27--Descent:

3.4.4.28.1. **Q.** Accomplished all required checks and procedures in a timely manner.

3.4.4.28.2. **Q-.** Accomplished all required checks and procedures in a timely manner with minor deviations that did not affect flight safety.



3.4.4.28.3. **U.** Accomplished descent checks and procedures with errors or omissions that could have affected flight safety.

**3.4.4.29. Area 28--Before Landing/Landing:**

3.4.4.29.1. **Q.** Monitored engine and aircraft systems to ensure compliance with limitations. Accomplished all required checks and procedures in a timely manner.

3.4.4.29.2. **Q-.** Monitored engine and aircraft systems to ensure compliance with limitations. Accomplished all required checks and procedures with minor deviations that did not affect flight safety.

3.4.4.29.3. **U.** Accomplished before landing/landing checks and procedures with errors or omissions that could have affected flight safety. Failed to monitor engine and aircraft systems.

**3.4.4.30. Area 29--After Landing/Engine Shutdown:**

3.4.4.30.1. **Q.** Accomplished all required checks and procedures in a timely manner.

3.4.4.30.2. **Q-.** Accomplished all required checks and procedures in a timely manner with errors or omissions that did not affect safety.

3.4.4.30.3. **U.** Accomplished after landing/engine shutdown checks and procedures with errors or omissions that could have affected safety.

**3.4.4.31. Area 30--Before Leaving Aircraft/Securing/Debriefing:**

3.4.4.31.1. **Q.** Correctly determined condition and status of the aircraft. Fully debriefed maintenance personnel. Individual Aircraft Tracking Program (IATP) flight log completed.

3.4.4.31.2. **Q-.** Unsure of condition or status of the aircraft. Limited debriefing of maintenance personnel. Completed IATP flight log with minor errors.

3.4.4.31.3. **U.** Inadequate knowledge and compliance with required procedures and directives. Required checks not accomplished; could not determine condition or status of aircraft; did not complete AFTO 781; maintenance personnel were not debriefed. IATP flight log not complete, or accomplished with major errors.

**3.4.4.32. Area 31--Emergency Procedures and Equipment:**

3.4.4.32.1. **Q.** Demonstrated thorough knowledge of emergency equipment/procedures. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

3.4.4.32.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment which did not result in an unsafe situation or jeopardize mission accomplishment.

3.4.4.32.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion which could result in an unsafe situation and/or jeopardize mission accomplishment.

**3.4.4.33. Area 32--Airmanship:**

3.4.4.33.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.

3.4.4.33.2. **Q-.** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.

3.4.4.33.3. **U.** Decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised. Regulations/directives were intentionally violated.

3.4.4.34. **Area 33--Safety (CRITICAL):**

3.4.4.34.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.4.4.34.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

3.4.4.35. **Area 34--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.4.4.35.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.4.4.35.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.4.4.35.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.4.4.36. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

3.4.4.36.1. **Area 35--Instructional Ability.**

3.4.4.36.2. **Area 36--Briefings/Critique.**

3.4.4.36.3. **Area 37--Demonstration and Performance.**

**Table 3.4. Consolidated Performance Data Limits.**

ITEM	COLUMN A (Q)	COLUMN B (Q-)
Field Pressure Altitude	+/- 200 ft	+/- 500 ft
Outside Air Temperature	+/- 3 degrees	+/- 5 degrees
Power Setting (EPR)	+/- .01	+/- .02
Takeoff Stabilizer Setting (Units)	+/- .2	+/- .4
All Computed Speeds	+/- 2 kts	+/- 4 kts
All Computed Distances	+/- 400 ft	+/- 600 ft
All Computed Gross Weights	+/- 2000 lbs	+/- 5000 lbs
Takeoff/Landing C.G.	+/- .5%	+/- 1.0%

**Table 3.5. Flight Engineer Evaluation Matrix.**

EVALUATION AREAS	QUAL	INSTR	MISSION
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Prepermission Requirements	R		R
4. Takeoff and Landing Data (CRITICAL)	R		R
5. Weight and Balance (CRITICAL)	R		R
6. Preflight Inspections	R		R
7. Before Start/Starting Engines	R		R
8. Taxi/Before Takeoff	R		R
9. Takeoff	R		R
10. After Takeoff and Climb	R		R
11. Cruise/On Station	R		R
12. Air Refueling	R		R
13. Electrical	R		R
14. Hydraulic/Pneudraulic	R		R
15. Air Conditioning/Bleed Air	R		R
16. Pressurization	R		R
17. Electronic Cooling	R		R
18. Engine/Engine Systems	R		R
19. Fuel	R		R
20. Ice/Rain Protection	R		R
21. APU/APU Systems	R		R
22. Oxygen/Lighting Equipment	R		R
23. Landing Gear/Wheels/Brakes	R		R
24. Flight Controls	R		R
25. Fire Detection/Extinguishing	R		R
26. Instruments/Communications/INS	R		R
27. Descent	R		R
28. Before Landing/Landing	R		R
29. After Landing/Engine Shutdown	R		R
30. Before Leaving Aircraft/Securing/ Debriefing	R		R
31. Emergency Procedures and Equipment	R		R
32. Airmanship	R		R
33. Safety (CRITICAL)	R		R
34. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R
35. Instructional Ability		R	
36. Briefings/Critiques		R	
37. Demonstration and Performance		R	

EVALUATION AREAS	QUAL	INSTR	MISSION
R = Required evaluation area.			

### 3.5. Mission Crew Commander Qualification and Mission Flight Evaluations:

3.5.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of a Mission Crew Commander (MCC) and Instructor Mission Crew Commander (IMCC).

3.5.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.5.1.2. Mission evaluations will encompass all areas identified in the evaluation matrix for the mission profile performed. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight.

#### 3.5.2. Evaluation Objectives:

3.5.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

3.5.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.5.3. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

#### 3.5.3.1. Area 1--Mission Planning:

3.5.3.1.1. **Q.** Pre-planned mission activities by determining mission tasking, ROE, command/control/ communications arrangements, and battle plans from planning/tasking documents. Obtained and analyzed maintenance status of aircraft and mission equipment and determined impact on mission objectives. Coordinated mission plans with flight crew. Prepared and conducted mission planning summary briefing according to directives. Read and initialed for all items in the FCIF and read files.

3.5.3.1.2. **Q-.** Directed and performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.5.3.1.3. **U.** Directed and performed mission planning with errors or omissions that could have jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

#### 3.5.3.2. Area 2--Briefings/Debriefings:

3.5.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives. Ensured the aircrew was thoroughly briefed on all aspects of the mission.

3.5.3.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings and/or ensured the aircrew was thoroughly briefed on all

aspects of the mission with errors or omissions that did not jeopardize mission accomplishment.

3.5.3.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment. Failed to ensure the aircrew was thoroughly briefed on all aspects of the mission.

**3.5.3.3. Area 3--Premission Requirements:**

3.5.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives. Assessed information (i.e., FCIF, etc.) for impact on mission activities. Confirmed agency(ies) exercising operational command/ control.

3.5.3.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment. Errors or omissions were made in confirming and assessing information concerning mission impact that did not jeopardize mission accomplishment.

3.5.3.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment. Errors or omissions were made in confirming and assessing information concerning mission impact that could have jeopardized mission accomplishment.

**3.5.3.4. Area 4--Preflight Inspections/Preparation for Departure:**

3.5.3.4.1. **Q.** Performed preflight inspections IAW applicable directives and reported discrepancies. Analyzed aircraft documents for impact on the mission. Reviewed technician inspection reports for equipment malfunctions and analyzes impact. Reported malfunctions that could adversely impact mission or delay departure to appropriate agencies. Coordinated requirements, mission changes, equipment discrepancies and limitations according to directives without misunderstanding, confusion, or delay.

3.5.3.4.2. **Q-.** Performed preflight inspections, analysis of aircraft documents and inspection reports, coordination requirements and reported malfunctions with errors or omissions that did not jeopardize mission accomplishment.

3.5.3.4.3. **U.** Performed preflight inspections, analysis of aircraft documents and inspection reports, coordination requirements and reported malfunctions with errors or omissions that could have jeopardized mission accomplishment.

**3.5.3.5. Area 5--Engine Start/Taxi:**

3.5.3.5.1. **Q.** Performed engine start and taxi procedures according to directives. Configured communications on audio distribution system (ADS) panel and monitored nets and radios. Configured oxygen system and seat for takeoff following the checklist and confirmed ASO's headcount. Performed roll call to check intercom and confirm mission crew was ready for engine start and taxi. Reported mission crew ready for engine start and taxi.

3.5.3.5.2. **Q-** Performed engine start and taxi procedures, configured/monitored communications, configured oxygen/seat requirements, performed roll call and reported mission crew ready with errors or omissions that did not jeopardize mission accomplishment.

3.5.3.5.3. **U.** Performed engine start and taxi procedures, configured/monitored communications, configured oxygen/seat requirements, performed roll call and reported mission crew ready with errors or omissions that could have jeopardized mission accomplishment.

**3.5.3.6. Area 6--Takeoff:**

3.5.3.6.1. **Q.** Performed before takeoff procedures according to directives and checklists. Confirmed and reported mission crew ready for takeoff.

3.5.3.6.2. **Q-** Confirmed/reported ready for takeoff with errors or omissions that did not jeopardize mission accomplishment.

3.5.3.6.3. **U.** Confirmed/reported ready for takeoff with errors or omissions that could have jeopardized mission accomplishment.

**3.5.3.7. Area 7--Outbound Procedures:**

3.5.3.7.1. **Q.** Coordinated, directed, and supervised activities required to power up and checkout mission systems en route to assigned station IAW applicable directives. Confirmed the radar, IFF, communications systems, and other sensors were operational, analyzed status reports, established work-around procedures for malfunctions, and reported mission capabilities to the appropriate agencies. Ensured AWACS monitor was established in a timely manner.

3.5.3.7.2. **Q-** Performed outbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.5.3.7.3. **U.** Performed outbound procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.5.3.8. Area 8--Assuming Station Responsibilities:**

3.5.3.8.1. **Q.** Confirmed that required radios were available, communications checks had been completed, radio and sensor coverage were adequate for assigned area of responsibility (AOR), sensors and data links were configured to meet mission requirements, and correlation checks had been completed. Assessed mission systems status to ensure capability existed to complete mission tasks and assume "Ops Normal/On Station" responsibility. Ensured mission crew monitored appropriate nets and that appropriate agencies were notified of E-3 status and limitations.

3.5.3.8.2. **Q-** Performed assuming station responsibilities with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.5.3.8.3. **U.** Performed assuming station responsibilities with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.5.3.9. Area 9--On Station Procedures:**

3.5.3.9.1. **Q.** Used all available assets to ensure the assigned mission was accomplished. Selected, interpreted, and analyzed tabular displays (TDs), situation displays (SDs), and switch actions IAW the MCC Task List to monitor and supervise mission activities. Managed the use of communications, computer, and sensor systems. Supervised mission crew mem-

bers, coordinated with flight crew, battlestaff, and external agencies. Performed the battle management actions required to accomplish the appropriate mission in the assigned theater of operations. Recognized potential threats to the E-3 and employed proper E-3 self-defense tactics to minimize threat and maximize mission accomplishment.

3.5.3.9.2. **Q-.** Performed On-Station procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.5.3.9.3. **U.** Performed On-Station procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.5.3.10. Area 10--AWACS Monitor Procedures (CRITICAL):**

3.5.3.10.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

3.5.3.10.2. **Q-.** Performed AWACS Monitor procedures with minor errors or omissions that did not jeopardize E-3 safety.

3.5.3.10.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors or omissions that could have jeopardized E-3 safety.

**3.5.3.11. Area 11--Console Operations and Displays:**

3.5.3.11.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

3.5.3.11.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

3.5.3.11.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that could have jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.5.3.12. Area 12--OPSEC/COMSEC/Authentication Procedures:**

3.5.3.12.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW operational security (OPSEC)/communications security (COMSEC) directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

3.5.3.12.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

3.5.3.12.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that could have jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

**3.5.3.13. Area 13--Air Refueling Procedures:**

3.5.3.13.1. **Q.** Prepared for air refueling in accordance with directives. Directed mission crew to begin air refueling checklist procedures. Directed ASO and ART to transfer sensors at appropriate times. Confirmed/reported mission equipment/mission crew was ready for air refueling. Following air refueling, resumed normal operations and directed re-establishment of equipment for mission use. Ensured AWACS monitor function was re-established. Analyzed changes in mission system status for mission impact and coordinated troubleshooting or work-arounds as required. Coordinated air refueling results with flight deck.

3.5.3.13.2. **Q-.** Performed air refueling procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.5.3.13.3. **U.** Performed air refueling procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.5.3.14. Area 14--Emergency Procedures and Equipment:**

3.5.3.14.1. **Q.** Conducted practice emergency drills that were according to directives and prepared crew members to properly perform actual emergency procedures. Diagnosed/responded to actual emergency situations and implemented emergency procedures according to directives. Demonstrated thorough knowledge of emergency procedures/equipment.

3.5.3.14.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.5.3.14.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.5.3.15. Area 15--Transferring Station Responsibilities:**

3.5.3.15.1. **Q.** Established communications with relieving unit, verified link status, and ensured effective transfer of link responsibility to relieving aircraft was accomplished when applicable. Established priorities and coordinated responsibilities for tactical action. Briefed relieving unit on appropriate information and air situation. Confirmed relieving unit had assumed station responsibilities and directed termination of data links.

3.5.3.15.2. **Q-.** Transferred station responsibilities with errors, omissions or delays that did not jeopardize mission accomplishment.

3.5.3.15.3. **U.** Transferred station responsibilities with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.5.3.16. Area 16--Mission Execution/Battle Management (CRITICAL):**

3.5.3.16.1. **Q.** Executed the assigned mission in a timely, efficient manner. Conducted the mission with a sense of understanding and comprehension.

3.5.3.16.2. **Q-.** Untimely or inappropriate decisions degraded or prevented accomplishment of a portion of the mission. Resources were not always effectively used to the point that specific mission objectives were not achieved.



3.5.3.16.3. **U.** Decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.

**3.5.3.17. Area 17--Special Instructions (SPINS)/Rules of Engagement (ROE) (CRITICAL):**

3.5.3.17.1. **Q.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, Search and Rescue (SAR) procedures, and/or other SPINS guidance were understood, briefed to the mission crew, and executed as appropriate in a timely manner. Maintained acceptable situational awareness on how the mission crew implemented these procedures.

3.5.3.17.2. **Q-.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood, briefed to the mission crew, and/or executed with errors, omissions or delays that did not jeopardize mission accomplishment. Situational awareness of implementation was maintained with omissions that did not jeopardize mission accomplishment.

3.5.3.17.3. **U.** Failed to implement SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g., Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and briefed to the mission crew with errors, omissions or delays that could have jeopardized mission accomplishment. Examinee failed to maintain an acceptable level of situational awareness on how the mission crew implemented these procedures.

**3.5.3.18. Area 18--E-3 Self Defense:**

3.5.3.18.1. **Q.** Identified threats to the E-3 and notified the AC. Directed mission crew retrograde procedures as required. Familiar with affects of retrograde actions on radio and sensor coverage and performance.

3.5.3.18.2. **Q-.** Identified threats, notified AC, directed mission crew retrograde procedures, and explained affects of retrograde actions with minor errors or omissions that did not jeopardize E-3 safety or mission accomplishment.

3.5.3.18.3. **U.** Failed to identify threats or notify AC. Directed mission crew retrograde actions with errors or omissions that could have jeopardized E-3 safety or mission accomplishment. Unfamiliar with and/or unable to explain affects of retrograde actions on radio and/or sensor coverage or performance.

**3.5.3.19. Area 19--Inbound Procedures:**

3.5.3.19.1. **Q.** Performed inbound procedures IAW applicable directives. Terminated station operations and declared off station IAW applicable directives. Ensured external agencies were notified and debriefed external participants. Directed termination of communications links. Directed transfer of sensors after determining requirement for quality control (QC)/diagnostic maintenance program (DMP). Directed technicians to perform QC/DMP or power down and directed console shutdown. Collected and reported maintenance status, monitored progress of and coordinated QC/DMP completion and directed system power down.

3.5.3.19.2. **Q-** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.5.3.19.3. **U.** Performed inbound procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.5.3.20. Area 20--Descent/Landing:**

3.5.3.20.1. **Q.** Performed descent and landing procedures IAW applicable directives. Directed mission crew to begin descent procedures and prepare for landing. Informed flight engineer when mission radar was off. Confirmed galley was secure and bunks had been cleared and directed loose items be stowed. Released forward forced air cooling system to flight engineer's control. Confirmed mission crew ready for landing.

3.5.3.20.2. **Q-** Prepared mission crew for descent and landing with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.5.3.20.3. **U.** Prepared mission crew for descent and landing with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.5.3.21. Area 21--Departing the Aircraft:**

3.5.3.21.1. **Q.** Ensured appropriate airplane cleanliness, safety and security measures were taken prior to departing the area.

3.5.3.21.2. **Q-** Departed the aircraft with errors or omissions that did not jeopardize safety or result in a security deviation or compromise.

3.5.3.21.3. **U.** Departed the aircraft with errors or omissions that could have jeopardized safety or could have resulted in a security deviation or compromise.

**3.5.3.22. Area 22--Post Mission Requirements:**

3.5.3.22.1. **Q.** Established priorities for equipment and classified material storage/destruction. Debriefed maintenance and intelligence if required. Conducted operations debriefing with the crew. Completed, collected and turned in all logs/forms/reports required by directives.

3.5.3.22.2. **Q-** Accomplished post-mission responsibilities with errors or omissions that did not jeopardize mission accomplishment.

3.5.3.22.3. **U.** Accomplished post-mission responsibilities with errors or omissions that could have jeopardized mission accomplishment.

**3.5.3.23. Area 23--Safety (CRITICAL):**

3.5.3.23.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.5.3.23.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

3.5.3.24. The following Areas 24, 25, and 26 will not be evaluated on initial qualification/mission evaluations. These areas are intended to evaluate the MCC's ability to perform the Battlestaff function in support of NORAD missions. These areas will be included in annual evaluations and

accomplished inflight, in the simulator, or verbally. These areas do not apply to 961 AACs, Kadena AB, Japan.

**3.5.3.25. Area 24--Battlestaff Mission Execution:**

3.5.3.25.1. **Q.** Assisted the Airborne Battle Commander (ABC) in implementing the battle plan, executing operations orders/operations plans, and interpreting Emergency Action Messages (EAM)/Quick Reaction Messages (QRM). Provided guidance to the Mission Crew Commander on employment of resources, ROE, survival actions, target identification, and marshaling.

3.5.3.25.2. **Q-.** Assisted the ABC in implementing the battle plan, executing operations orders/operations plans, interpreting EAMs/QRMs and employing assigned resources with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.5.3.25.3. **U.** Assisted the ABC in implementing the battle plan, executing operations orders/operations plans, interpreting EAMs/QRMs and employing assigned resources with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.5.3.26. Area 25--Rules of Engagement (ROE) (NORAD):**

3.5.3.26.1. **Q.** Implemented ROE procedures for peacetime, transition and wartime conditions, Canada/US sovereign airspace limits, recognition of hostile/harassment acts, and choice of correct diversion bases. Responded to ROE situation according to directives.

3.5.3.26.2. **Q-.** Implemented ROE procedures with errors or omissions that did not adversely effect completion of ROE actions.

3.5.3.26.3. **U.** Implemented ROE procedures with errors or omissions that could adversely effect completion of ROE actions.

**3.5.3.27. Area 26--Authorities:**

3.5.3.27.1. **Q.** Interpreted tabular information (TABs) and formatted messages to determine authorities, area of responsibility (AOR), decentralized control level, command and control indicator, resources, weapons readiness states, defense conditions (DEFCONs), and readiness postures. Applied centralized/decentralized control procedures and responsibilities under level 1, 2, and 3 decentralized control conditions. Applied authorities prescribed for the ABC/BD at various DEFCONs and levels of decentralization. Implemented procedures to assume command authority if applicable.

3.5.3.27.2. **Q-.** Interpreted TABs or formatted messages, or applied decentralized control procedures or ABC/BD authorities with errors, omissions, or delays that did not jeopardize command authority, assumption of command, or mission accomplishment.

3.5.3.27.3. **U.** Interpreted TABs or formatted messages, or applied decentralized control procedures or ABC/BD authorities with errors, omissions, or delays that could have jeopardized command authority, assumption of command, or mission accomplishment.

**3.5.3.28. Area 27--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.5.3.28.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.5.3.28.2. **Q-** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.5.3.28.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.5.3.29. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

3.5.3.29.1. **Area 28**--Instructional Ability.

3.5.3.29.2. **Area 29**--Briefings/Critique.

3.5.3.29.3. **Area 30**--Demonstration and Performance.

**Table 3.6. Mission Crew Commander Evaluation Matrix.**

EVALUATION AREAS	QUAL	INSTR	MISSION PROFILES	
			TACTICAL	AIR SOVEREIGNTY
1. Mission Planning	R		R	R
2. Briefings/Debriefings	R		R	R
3. Prepermission Requirements	R			
4. Preflight Inspections/ Preparation for Departure	R			
5. Engine Start/Taxi	R			
6. Takeoff	R			
7. Outbound Procedures	R			
8. Assuming Station Responsibilities	R			
9. On Station Procedures	R		R	R
10. AWACS Monitor Procedures (CRITICAL)	R		R	R
11. Console Operations and Displays	R		R	R
12. OPSEC/COMSEC/ Authentication Procedures			R	R
13. Air Refueling Procedures	R		R	R
14. Emergency Procedures and Equipment	R			
15. Transferring Station Responsibilities	R		R	R
16. Mission Execution/Battle Management (CRITICAL)			R	R

EVALUATION AREAS	QUAL	INSTR	MISSION PROFILES	
			TACTICAL	AIR SOVEREIGNTY
17. Special Instructions (SPINS)/ Rules of Engagement (ROE) (CRITICAL)	R		R	R
18. E-3 Self Defense			R	R
19. Inbound Procedures	R			
20. Descent/Landing	R			
21. Departing the Aircraft	R			
22. Post Mission Requirements	R		R	R
23. Safety (CRITICAL)	R		R	R
24. Battlestaff Mission Execution				R
25. Rules of Engagement (ROE) (NORAD)				R
26. Authorities				R
27. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R	R
28. Instructional Ability		R		
29. Briefings/Critique		R		
30. Demonstration and Performance		R		
R = Required evaluation area.				

### 3.6. Senior Director Qualification and Mission Flight Evaluations:

3.6.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of a Senior Director (SD) and Instructor Senior Director (ISD).

3.6.1.1. Qualification and mission evaluations encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight.

3.6.1.2. SD qualification evaluations will be conducted on a live E-3 sortie while the examinee actively supervises a weapons team conducting weapons control activity. Acceptability of required activity will be based on the evaluator's determination that the evaluation objective has been met. The evaluation will include assessing the examinee's ability to successfully accomplish Areas 1-9, 11-16, 18-23, and 26 in paragraph 3.6.3. and control a live mission. For the control portion of the evaluation, the WD evaluation criteria in paragraph 3.7.3. will be used.

3.6.1.3. SD mission evaluations will be conducted on a live E-3 sortie whenever possible. The examinee will actively supervise a weapons team conducting weapons control activity during a Tactical or Air Sovereignty scenario. If unable to accomplish a mission evaluation on a live sortie, the mission evaluation may be accomplished in the simulator. Acceptability of required activity will be based on the evaluator's determination that the evaluation objective has been met. The evaluation will include assessing the examinee's ability to successfully accomplish Areas 1-2, 6,

8-10, 12-13, 15, 17, and 19-27 in paragraph 3.6.3. If the SD chooses to control during a mission profile, ensure all applicable qualification evaluation areas in paragraph 3.7.3. are evaluated.

3.6.1.4. There will be instances where an examinee, during a mission evaluation, accomplishes all areas required for a qualification evaluation. In this case, the evaluation will be annotated as a mission/qualification evaluation. Acceptability of required activity will be based on the evaluator's determination that all areas required for a mission and a qualification evaluation have been met. Due to the qualification evaluation criteria, this will require a live E-3 sortie. The evaluation will include assessing the examinee's ability to successfully accomplish Areas 1-27 in paragraph 3.6.3.

3.6.1.5. ISD evaluations will assess the examinee's ability to instruct a student according to the criteria in Areas 28-30 in paragraph 3.6.3. Initial ISD evaluations require an IQT/MQT SD student whenever possible. Initial ISD evaluations may include SD criteria for the purpose of updating expiration dates. Recurring ISD evaluations require an IQT/MQT SD student, or a WD/IWD identified for SD upgrade. ISD qualification evaluations conducted in conjunction with an SD evaluation will include Areas 1-9, 11-16, 18-23, 26, and 28-30 in paragraph 3.6.3. During subsequent mission evaluations updating SD and ISD requirements together, the ISD will, by performing instructor duties, automatically update SD mission evaluation requirements. If the ISD instructs during a qualification evaluation they still have the requirement to instruct or perform SD duties during a mission evaluation. As a minimum, the ISD will control to a qualification evaluation level. If the ISD controls during a mission profile, ensure all applicable qualification evaluation areas in paragraph 3.7.3. are evaluated.

3.6.1.6. Completion of the ISD evaluation which includes demonstration of competence as a WD qualifies the ISD to perform as an IWD or WD. Completion of the SD evaluation which includes demonstration of competence as a WD qualifies the SD to perform as a WD.

### 3.6.2. Evaluation Objectives:

3.6.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

3.6.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.6.3. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

#### 3.6.3.1. Area 1--Mission Planning:

3.6.3.1.1. **Q.** Conducted mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Checked all factors applicable to the mission (e.g. letters of agreement (LOAs), SPINS, ROE, ATO, lessons learned, WD training requirements, E-3 employment capabilities, and aeronautical charts). Completed required mission forms. Ensured communications worksheet met weapons mission needs. Read and initialed for all items in the FCIF and read files.

3.6.3.1.2. **Q-.** Conducted mission planning with errors or omissions that did not jeopardize mission accomplishment. Checked all factors applicable to the mission (e.g. LOAs, SPINS, ROE, ATO, lessons learned, WD training requirements, E-3 employment capabilities, and aeronautical charts) with errors or omissions that did not jeopardize mission accomplishment. Completed required mission forms or coordinated communications worksheet with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.1.3. **U.** Conducted mission planning with errors or omissions that jeopardized or could have jeopardized mission accomplishment. Checked all factors applicable to the mission (e.g., LOAs, SPINS, ROE, ATO, lessons learned, WD training requirements, E-3 employment capabilities, and aeronautical charts) with errors or omissions that could have jeopardized mission accomplishment. Did not complete required mission forms. Did not ensure communications worksheet met weapons mission needs. Failed to read and initial for all items in the FCIF and read files.

**3.6.3.2. Area 2--Briefings/Debriefings:**

3.6.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives. Ensured the weapons team/aircrew was thoroughly briefed on all aspects of the weapons mission.

3.6.3.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings and/or ensured the weapons team/aircrew was thoroughly briefed on all aspects of the weapons mission with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment. Failed to ensure the weapons team/aircrew was thoroughly briefed on all aspects of the weapons mission.

**3.6.3.3. Area 3--Premission Requirements:**

3.6.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.6.3.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Publications posted with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.3.3. **U.** Failed to possess all personal/professional equipment or to maintain equipment in serviceable condition. Publications posted with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.4. Area 4--Preflight Inspections:**

3.6.3.4.1. **Q.** Performed preflight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

3.6.3.4.2. **Q-.** Performed preflight inspections and/or determined equipment status that may have affected the mission with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.4.3. **U.** Performed preflight inspections and/or determined equipment status that may have affected the mission with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.5. Area 5--Before Start:**

3.6.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

3.6.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.5.3. **U.** Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.6. Area 6--Internal/External Coordination:**

3.6.3.6.1. **Q.** Coordinated with the E-3 crew and/or external agencies/participants. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion or delay.

3.6.3.6.2. **Q-.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion or delays that did not jeopardize mission accomplishment.

3.6.3.6.3. **U.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.6.3.7. Area 7--Outbound Procedures:**

3.6.3.7.1. **Q.** Performed equipment set up and checkout to ensure operation was IAW applicable directives. Ensured timely reporting of status for console, communications, and other operator tasked equipment for the weapons section.

3.6.3.7.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that did not jeopardize mission accomplishment.

3.6.3.7.3. **U.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.6.3.8. Area 8--Console Operations and Displays:**

3.6.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

3.6.3.8.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

3.6.3.8.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that could have jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that could have jeopardized mission accomplishment.



**3.6.3.9. Area 9--Communications Selection and Use:**

3.6.3.9.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities mission tasking IAW applicable directives.

3.6.3.9.2. **Q-.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.9.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that could have jeopardized mission accomplishment. Communications selection and use contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.6.3.10. Area 10--OPSEC/COMSEC/Authentication Procedures:**

3.6.3.10.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

3.6.3.10.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

3.6.3.10.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that could have jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

**3.6.3.11. Area 11--Emergency Procedures and Equipment:**

3.6.3.11.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crew members without delay.

3.6.3.11.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.6.3.11.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.6.3.12. Area 12--Safety (CRITICAL):**

3.6.3.12.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.6.3.12.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.6.3.13. Area 13--Assuming Station Responsibilities:**

3.6.3.13.1. **Q.** Performed tasks for assuming station IAW applicable directives.

3.6.3.13.2. **Q-.** Performed tasks for assuming station with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.13.3. **U.** Performed tasks for assuming station with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.14. Area 14--AWACS Monitor Procedures (CRITICAL):**

3.6.3.14.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

3.6.3.14.2. **Q-.** Performed AWACS Monitor procedures with minor errors or omissions that did not jeopardize E-3 safety.

3.6.3.14.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors or omissions that could have jeopardized E-3 safety.

**3.6.3.15. Area 15--Sensors:**

3.6.3.15.1. **Q.** Recognized and reported degraded sensor performance. Coordinated sensor requirements to optimize presentation for mission tasking IAW applicable directives. Understood impact of major sensor changes on the mission.

3.6.3.15.2. **Q-.** Recognized or reported degraded sensor performance with errors or omissions that did not jeopardize mission accomplishment. Understood impact of major sensor changes on the mission with errors or omissions that did not jeopardize the mission.

3.6.3.15.3. **U.** Failed to recognize or report degraded sensor performance that could have jeopardized mission accomplishment. Failed to understand impact of major sensor changes on the mission.

**3.6.3.16. Area 16--Weather Information:**

3.6.3.16.1. **Q.** Processed weather information IAW operations directives and provided updates and/or ensured changes were passed to the aircrews upon notification of weather changes affecting mission aircraft.

3.6.3.16.2. **Q-.** Processed/disseminated weather information with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.16.3. **U.** Processed/disseminated weather information with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.17. Area 17--Special Instructions (SPINS)/Rules of Engagement (ROE) (CRITICAL):**

3.6.3.17.1. **Q.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, Search and Rescue (SAR) procedures, and/or other SPINS guidance were understood, briefed to the weapons team, and executed as appropriate in a timely manner. Maintained acceptable situational awareness on how the weapons team implemented these procedures.

3.6.3.17.2. **Q-.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Identification (e.g., Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood, briefed to the weapons team, and/or executed

with errors, omissions or delays that did not jeopardize mission accomplishment. Situational awareness of implementation was maintained with omissions that did not jeopardize mission accomplishment.

3.6.3.17.3. **U.** Failed to implement SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g., Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and briefed to the weapons team with errors, omissions or delays that could have jeopardized mission accomplishment. Examinee failed to maintain an acceptable level of situational awareness on how the weapons team implemented these procedures.

**3.6.3.18. Area 18--Airspace Coordination:**

3.6.3.18.1. **Q.** Initiated airspace requests and verified that airspace restrictions and limitations were passed and complied with IAW applicable directives. Airspace coordination was accomplished leaving the lead time required to ensure mission accomplishment.

3.6.3.18.2. **Q-.** Conducted airspace coordination with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.18.3. **U.** Conducted airspace coordination with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.19. Area 19--Check In/Identification Procedures:**

3.6.3.19.1. **Q.** Ensured weapons team identified assigned aircraft using pilot reported position, radar and/or IFF/SIF return, pilot maneuvering, or external sources. Ensured identification was accomplished in a timely manner. Ensured weapons team checked in aircraft IAW AFI 11-214, *Aircrew and Weapons Director Procedures for Air Operations*, and/or theater directives.

3.6.3.19.2. **Q-.** Ensured identification of assigned aircraft in a timely manner. Ensured weapons team checked in aircraft IAW AFI 11-214 and/or theater directives with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.19.3. **U.** Failed to have weapons team identify assigned aircraft in a timely manner. Failed to ensure weapons team checked in aircraft IAW AFI 11-214 and/or theater directives. Errors, omissions or delays could have jeopardized mission accomplishment.

**3.6.3.20. Area 20--Control Supervision (CRITICAL):**

3.6.3.20.1. **Q.** Ensured the weapons team had radios, sensors, airspace, etc. necessary to control. Ensured the team controlled assigned missions to the level requested and/or followed the continuum of control to the maximum extent possible. Supervised weapons team to the extent needed to achieve mission accomplishment. Provided/updated threat information (to include changes in targets and/or enemy order of battle) to the crew. Ensured that situation/threat information was provided to aircraft in a timely and accurate manner.

3.6.3.20.2. **Q-.** Ensured the weapons team had radios, sensors, airspace, etc. necessary to control. Ensured the team controlled assigned missions to the level requested and/or followed the continuum of control, to the maximum extent possible, with errors or omissions that did not jeopardize mission accomplishment. Provided/updated threat information (to include changes in targets and enemy order of battle) and supervised the weapons team with errors or

omissions that did not jeopardize mission accomplishment. Situation/threat information provided to aircraft had errors or omissions that did not jeopardize mission accomplishment.

3.6.3.20.3. **U.** Failed to ensure the weapons team had radios, sensors, airspace, etc. necessary to control. Did not ensure that the team controlled assigned missions to the level requested and/or followed the continuum of control. Failed to provide/update threat information (to include changes in targets and enemy order of battle) to the crew correctly or in a timely manner. Failed to ensure that situation/threat information was provided to aircraft in a timely manner. Errors or omissions could have jeopardized mission accomplishment.

**3.6.3.21. Area 21--Commit:**

3.6.3.21.1. **Q.** Ensured airborne assets were committed (computer/verbal as required) to a tactical objective consistent with rules of engagement, operations plans, or battlestaff direction. Provided a target/objective briefing IAW AFI 11-214 based on the mission and level of control.

3.6.3.21.2. **Q-.** Ensured airborne assets were committed (computer/verbal as required) to a tactical objective or provided a target/objective briefing with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.21.3. **U.** Failed to ensure airborne assets were committed (computer/verbal as required) to a tactical objective consistent with rules of engagement or battlestaff direction. Made errors or omissions in target/objective briefing that could have jeopardized mission accomplishment.

**3.6.3.22. Area 22--Hand Off/Recovery:**

3.6.3.22.1. **Q.** Directed/conducted hand off/recovery IAW applicable directives. Transferred/accepted track symbology IAW applicable directives.

3.6.3.22.2. **Q-.** Directed/conducted hand off/recovery or transferred/accepted track symbology with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.22.3. **U.** Directed/conducted hand off/recovery or transferred/accepted track symbology with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.23. Area 23--Radio/Telephone (R/T) Procedures:**

3.6.3.23.1. **Q.** Employed R/T procedures IAW AFI 11-214, AFTTP 3-1, *General Planning and Employment Considerations*, applicable Joint and Combined communications procedures, and Wing Standards.

3.6.3.23.2. **Q-.** Employed R/T procedures with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.23.3. **U.** Employed R/T procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.24. Area 24--Resource Allocation:**

3.6.3.24.1. **Q.** Allocated weapons resources IAW tactical situations or directives.

3.6.3.24.2. **Q-.** Allocated weapons resources with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.24.3. **U.** Allocated weapons resources with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.25. Area 25--E-3 Self Defense:**

3.6.3.25.1. **Q.** Identified threats to the E-3 and notified the appropriate crewmembers. Performed retrograde procedures as directed. Familiar with affects of retrograde actions on sensor coverage and performance.

3.6.3.25.2. **Q-.** Identified threats, notified appropriate crewmembers, performed retrograde procedures, and explained affects of retrograde actions with minor errors and omissions that did not jeopardize E-3 safety or mission accomplishment.

3.6.3.25.3. **U.** Failed to identify threats or notify appropriate crewmembers. Unfamiliar with and/or unable to explain affects of retrograde actions on sensor coverage or performance. Errors and omissions could have jeopardized E-3 safety or mission accomplishment.

**3.6.3.26. Area 26--Postmission:**

3.6.3.26.1. **Q.** Received, copied and relayed postmission information such as fuel, armament, battle damage assessments (BDAs), and inflight reports. Completed forms, logs and reports as required. Passed information to appropriate crewmembers and external agencies (as applicable) IAW applicable directives.

3.6.3.26.2. **Q-.** Accomplished postmission duties with errors or omissions that did not jeopardize mission accomplishment.

3.6.3.26.3. **U.** Accomplished postmission duties with errors or omissions that could have jeopardized mission accomplishment.

**3.6.3.27. Area 27--Mission Execution/Battle Management (CRITICAL):**

3.6.3.27.1. **Q.** Developed and implemented the weapons team plan of execution. Contracted with other sections of the crew and external agencies to execute an effective plan. Led the weapons team in tactical employment of assigned aircraft to successfully accomplish mission tasking. Directed/ensured crewmembers selected proper tactics based on aircraft capabilities, the threat, rules of engagement, battlestaff directives, and/or mission requirements IAW applicable directives. Conducted the mission with a sense of understanding and comprehension.

3.6.3.27.2. **Q-.** Plans, contracts, or decisions degraded or prevented accomplishment of a portion of the weapons mission. Directed/ensured crewmembers selected proper tactics based on aircraft capabilities, the threat, rules of engagement, battlestaff directives, and/or mission requirements IAW applicable directives with errors or omissions that did not jeopardize mission accomplishment. Weapons resources were not always effectively used to the point that specific mission objectives were not achieved.

3.6.3.27.3. **U.** Plans, contracts, or decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Demonstrated poor judgment in use of weapons resources to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.

**3.6.3.28. Area 28--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.6.3.28.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.6.3.28.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.6.3.28.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.6.3.29. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

3.6.3.29.1. **Area 29**--Instructional Ability.

3.6.3.29.2. **Area 30**--Briefings/Critiques.

3.6.3.29.3. **Area 31**--Demonstration and Performance.

**Table 3.7. Senior Director Evaluation Matrix.**

Evaluation Areas	Qual	Instr	Mission Profiles	
			Tactical	Air Sovereignty
1. Mission Planning	R		R	R
2. Briefings/Debriefings	R		R	R
3. Prepermission Requirements	R			
4. Preflight Inspections	R			
5. Before Start	R			
6. Internal/External Coordination	R		R	R
7. Outbound Procedures	R			
8. Console Operations and Displays	R		R	R
9. Communications Selection and Use	R		R	R
10. OPSEC/COMSEC/Authentication Procedures			R	R
11. Emergency Procedures and Equipment	R			
12. Safety (CRITICAL)	R		R	R
13. Assuming Station Procedures	R		R	R
14. AWACS Monitor Procedures (CRITICAL)	R			
15. Sensors	R		R	R
16. Weather Information	R			
17. Special Instructions (SPINS)/Rules of Engagement (ROE) (CRITICAL)			R	R
18. Airspace Coordination	R			
19. Check In/Identification Procedures	R		R	R

Evaluation Areas	Qual	Instr	Mission Profiles	
			Tactical	Air Sovereignty
20. Control Supervision (CRITICAL)	R		R	R
21. Commit	R		R	R
22. Hand Off/Recovery	R		R	R
23. Radio/Telephone (R/T) Procedures	R		R	R
24. Resource Allocation			R	R
25. E-3 Self Defense			R	R
26. Post-mission	R		R	R
27. Mission Execution/Battle Management (CRITICAL)			R	R
28. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R	R
29. Instructional Ability		R		
30. Briefings/Critiques		R		
31. Demonstration and Performance		R		
R = Required evaluation area.				

### 3.7. Weapons Director Qualification and Mission Flight Evaluations:

3.7.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations for Weapons Directors (WD) and Instructor Weapons Directors (IWD).

3.7.1.1. Qualification and mission evaluations encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight. Examinee will be evaluated on all phases of a given control mission while aircraft are on their assigned frequency.

3.7.1.2. WD qualification evaluations will be conducted on live E-3 sorties while the examinee controls ACT/DACT or intercept missions. Acceptability of required activity will be based on the evaluator's determination that the evaluation objectives have been met. The evaluation will include assessing the examinee's ability to successfully accomplish Areas 1-9, 11-14, 16-19, and 24-27 in paragraph 3.7.3.

3.7.1.3. WD mission evaluations will be conducted on live E-3 sorties whenever possible. The examinee will conduct weapons activity as the offensive counter-air (OCA) Air to Air, OCA Air to Ground, defensive counter-air (DCA), or the Air Refueling Controller during a mission profile. If unable to accomplish a mission evaluation on a live sortie, the mission evaluation can be accomplished in the simulator. Acceptability of required activity will be based on the evaluator's determination that the evaluation objective has been met. The evaluation will include assessing the examinee's ability to successfully accomplish Areas 1-2, 6, 8-10, 12-13, 15, 18, 24-27, and Area 20, 21, 22 or 23 (or Area 19 IAW OGV guidance) depending on the examinee's assigned profile.

3.7.1.4. There will be instances where an examinee, during a mission evaluation, accomplishes all areas required for a qualification evaluation. In this case, the evaluation will be annotated as a mission/qualification evaluation. Acceptability of required activity will be based on the evalua-

tor's determination that all areas required for a mission and a qualification evaluation have been met. Due to the qualification evaluation criteria, this will require a live E-3 Sortie. The evaluation will include assessing the examinee's ability to successfully accomplish Areas 1-18, 20, 21, 22 or 23 (or Area 19 IAW OGV guidance), 24-27 in paragraph 3.7.3.

3.7.1.5. IWD evaluations will assess the examinee's ability to instruct a student according to the criteria in Areas 28-30 in paragraph 3.7.3. Initial and recurring IWD evaluations require an IQT/MQT WD student whenever possible. Initial IWD evaluations may include WD criteria for the purpose of updating expiration dates. IWD evaluations conducted with a WD evaluation will include all areas described for a WD mission/qualification evaluation and an IWD evaluation in paragraph 3.7.3. During subsequent evaluations updating WD and IWD requirements together, the IWD will instruct, as a minimum, during a qualification evaluation and control during a mission evaluation. In this case, there is no need to control during a qualification evaluation; rather, controlling is only required during a mission evaluation.

3.7.1.6. E-3 WDs/IWDs will be evaluated on live missions assigned by the Senior Director (SD). However, the evaluator is responsible for determining whether or not briefed/conducted control activities meet/fulfill live control requirements. The specific control events not evaluated on a mission evaluation can be evaluated by simulation.

### 3.7.2. Evaluation Objectives:

3.7.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

3.7.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.7.3. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

#### 3.7.3.1. Area 1--Mission Planning:

3.7.3.1.1. **Q.** Assisted the SD and other WDs in mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Checked all factors applicable to assigned mission (e.g., ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts). Read and initialed for all items in the FCIF and read files.

3.7.3.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts) with errors or omissions that did not jeopardize the mission.

3.7.3.1.3. **U.** Performed mission planning with errors or omissions that jeopardized or could have jeopardized mission accomplishment. Checked all factors applicable to the mission (e.g., ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts) with errors or omissions that could have jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.



**3.7.3.2. Area 2--Briefings/Debriefings:**

3.7.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings IAW AFI 11-214 and other directives.

3.7.3.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions which did not jeopardize mission accomplishment.

3.7.3.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.3. Area 3--Premission Requirements:**

3.7.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and publications posted IAW applicable directives.

3.7.3.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Publications posted with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.3.3. **U.** Failed to possess all personal/professional equipment or to maintain equipment in serviceable condition. Publications posted with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.4. Area 4--Preflight Inspections:**

3.7.3.4.1. **Q.** Performed preflight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

3.7.3.4.2. **Q-.** Performed preflight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.4.3. **U.** Performed preflight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.5. Area 5--Before Start:**

3.7.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

3.7.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.5.3. **U.** Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.6. Area 6--Internal/External Coordination:**

3.7.3.6.1. **Q.** Coordinated with the E-3 crew and/or external agencies/participants. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion or delay.

3.7.3.6.2. **Q-.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion or delays that did not jeopardize mission accomplishment.

3.7.3.6.3. **U.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.7.3.7. Area 7--Outbound Procedures:**

3.7.3.7.1. **Q.** Performed equipment set up and checkout to ensure operation was IAW applicable directives. Reported status for console, communications, and other operator tasked equipment in a timely manner.

3.7.3.7.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that did not jeopardize mission accomplishment.

3.7.3.7.3. **U.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.7.3.8. Area 8--Console Operations and Displays:**

3.7.3.8.1. **Q.** Interpreted/initiated/updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

3.7.3.8.2. **Q-.** Interpreted/initiated/updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

3.7.3.8.3. **U.** Interpreted/initiated/updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that could have jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.7.3.9. Area 9--Communications Selection and Use:**

3.7.3.9.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives.

3.7.3.9.2. **Q-.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.9.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that could have jeopardized mission accomplishment. Communications selection and use contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.7.3.10. Area 10--OPSEC/COMSEC/Authentication Procedures:**

3.7.3.10.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

3.7.3.10.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

3.7.3.10.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that could have jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the time limit specified or the authenticator.

**3.7.3.11. Area 11--Emergency Procedures and Equipment:**

3.7.3.11.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crew members without delay.

3.7.3.11.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.7.3.11.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.7.3.12. Area 12--Safety (CRITICAL):**

3.7.3.12.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.7.3.12.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.7.3.13. Area 13--Sensors:**

3.7.3.13.1. **Q.** Recognized and reported degraded sensor performance IAW applicable directives.

3.7.3.13.2. **Q-.** Recognized or reported degraded sensor performance with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.13.3. **U.** Failed to recognize degraded sensor performance, or reported degraded sensor performance with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.14. Area 14--Weather Information:**

3.7.3.14.1. **Q.** Processed weather information IAW operations directives and provided updates to the aircrews upon notification of weather changes affecting mission aircraft.

3.7.3.14.2. **Q-**. Processed weather information or updated aircrews with weather changes with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.14.3. **U**. Processed weather information or updated aircrews of weather changes with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.15. Area 15--Special Instructions (SPINS)/Rules of Engagement (ROE) (CRITICAL):**

3.7.3.15.1. **Q**. Implemented SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, Search and Rescue (SAR) procedures, and/or other SPINS guidance were understood and executed appropriate in a timely manner.

3.7.3.15.2. **Q-**. Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and/or executed with errors or omissions or in a lengthy time period that did not jeopardize mission accomplishment.

3.7.3.15.3. **U**. Failed to implement SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and/or executed with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.7.3.16. Area 16--AWACS Monitor Procedures (CRITICAL):**

3.7.3.16.1. **Q**. Performed AWACS Monitor procedures IAW applicable directives.

3.7.3.16.2. **Q-**. Performed AWACS Monitor procedures with minor errors or omissions that did not jeopardize E-3 safety.

3.7.3.16.3. **U**. Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors or omissions that could have jeopardized E-3 safety.

**3.7.3.17. Area 17--Airspace Coordination:**

3.7.3.17.1. **Q**. Initiated airspace requests and verified airspace restrictions and limitations IAW applicable directives.

3.7.3.17.2. **Q-**. Initiated airspace requests or verified airspace restrictions and limitations with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.17.3. **U**. Initiated airspace requests or verified airspace restrictions and limitations with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.18. Area 18--Check In/Identification Procedures:**

3.7.3.18.1. **Q**. Identified assigned aircraft using pilot reported position, radar and/or IFF/SIF return, pilot maneuvering or external sources. Identification was accomplished in a timely manner or negative radar contact was voiced. Authenticated as required and provided the aircrew with working frequency or net and time of day (TOD) (if applicable). Provided a brief situation update ("Picture") and provided requested/required information. Conducted IFF/SIF checks and advised aircrew of status. Transferred control to the working WD (if applicable).

3.7.3.18.2. **Q-** Identified assigned aircraft in a timely manner or negative radar contact was voiced. Authenticated as required, provided the aircrew with working frequency or net, provided a brief situation update ("Picture"), provided requested/required information, conducted IFF/SIF checks, advised aircrew of status, and transferred control to the working WD (if applicable) with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.18.3. **U.** Failed to identify assigned aircraft in a timely manner or voice negative radar contact. Authenticated as required, provided the aircrew with working frequency or net, provided a brief situation update ("Picture"), provided requested/required information, conducted IFF/SIF checks, advised aircrew of status, and transferred control to the working WD (if applicable) with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.19. Area 19--Air Combat Tactics (ACT)/Dissimilar Air Combat Tactics (DACT) or Intercept Control (CRITICAL):**

3.7.3.19.1. **Q.** Controlled fighters using radar and/or IFF/SIF presentations consistent with continuum of control. Kept fighters informed of all factor groups through "Picture" and threat calls. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information was accurate to within 10 degrees and 3 NM. Positioned fighters to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 consistent with briefed mission and aircraft capabilities.

3.7.3.19.2. **Q-** Controlled fighters with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.19.3. **U.** Controlled fighters with errors or omissions that could have jeopardized mission accomplishment. Positioning was not consistent with continuum of control and/or mission objectives.

**3.7.3.20. Area 20--Offensive Counter-Air (OCA) Air-to-Air Control (CRITICAL):**

3.7.3.20.1. **Q.** Controlled fighters using radar and/or IFF/SIF presentations consistent with continuum of control and considered the enemy order of battle. Controlled force protection and/or sweep operations that effectively protected assets and/or accomplished the mission. Kept fighters informed of all factor groups through "Picture" and threat calls. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information is accurate to within 10 degrees and 3 NM. Positioned fighters to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 consistent with aircraft capabilities, rules of engagement, operations directives, and battlestaff direction.

3.7.3.20.2. **Q-** Controlled fighters with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.20.3. **U.** Controlled fighters with errors or omissions that could have jeopardized mission accomplishment. Positioning was not consistent with continuum of control, mission objectives, operations directives, rules of engagement, or battlestaff direction.

**3.7.3.21. Area 21--Defensive Counter-Air (DCA) Air-to-Air Control (CRITICAL):**

3.7.3.21.1. **Q.** Controlled fighters using radar and/or IFF/SIF presentations consistent with continuum of control. Controlled CAP operations that effectively protected assets and/or accomplished the mission. Kept fighters informed of all factor groups through "Picture" and

threat calls. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information is accurate to within 10 degrees and 3 NM. Identified all factor groups as able. Positioned fighters to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 consistent with aircraft capabilities, rules of engagement, operations directives, and battlestaff direction.

3.7.3.21.2. **Q-.** Controlled fighters with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.21.3. **U.** Controlled fighters with errors or omissions that could have jeopardized mission accomplishment. Positioning was not consistent with continuum of control, mission objectives, operations directives, rules of engagement, or battlestaff direction.

**3.7.3.22. Area 22--Offensive Counter-Air (OCA) Strike Control (CRITICAL):**

3.7.3.22.1. **Q.** Controlled or provided positioning assistance to aircrews using radar and/or IFF/SIF presentations. As required/requested, provided vectoring assistance to route or target points to place fighters/flights in a position to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 consistent with aircraft capabilities, rules of engagement, threat, enemy order of battle, and battlestaff direction. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information is accurate to within 10 degrees and 3 NM. Provided minimum risk/safe passage and flight join up assistance as required/requested.

3.7.3.22.2. **Q-.** Controlled or provided positioning, vectoring, safe passage, or join up assistance with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.22.3. **U.** Controlled or provided positioning, vectoring, safe passage, or join up assistance with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.23. Area 23--Air Refueling Control (CRITICAL):**

3.7.3.23.1. **Q.** Controlled or provided positioning assistance to aircrews using radar and/or IFF/SIF presentations. Prioritized refueling activity and placed receivers and/or tankers in a position to accomplish mission objectives IAW AFI 11-214 and AFTTP 3-1 and consistent with aircraft capabilities and battlestaff direction. In a close control situation, established geometry within 1 minute of pairing, provided updates, and positioned receivers within a cone 30 degrees wide and 0 to 5 NM astern of the tanker (for speed advantage situations) or 30 degrees wide and 0 to 3 NM astern of the tanker (without speed advantage) measured at roll-out. Provided/updated threat information (to include changes in targets and enemy order of battle) to aircraft under control. Threat information is accurate to within 10 degrees and 3 NM.

3.7.3.23.2. **Q-.** Controlled or provided positioning assistance to aircrews with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.23.3. **U.** Controlled or provided positioning assistance to aircrews with errors or omissions that could have jeopardized mission accomplishment. Final positioning was not within air refueling parameters defined above.

**3.7.3.24. Area 24--Commit:**

3.7.3.24.1. **Q.** Committed (computer and/or verbal, as required) airborne assets to a tactical objective consistent with rules of engagement, operations plans, or battlestaff direction. Provided target/objective briefing IAW AFI 11-214 based on the mission and level of control.

3.7.3.24.2. **Q-.** Committed airborne assets to a tactical objective or provided a target/objective briefing with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.24.3. **U.** Failed to commit assets consistent with rules of engagement or battlestaff direction. Made errors or omissions in target/objective briefing that could have jeopardized mission accomplishment.

**3.7.3.25. Area 25--Hand Off/Recovery:**

3.7.3.25.1. **Q.** Conducted hand off/recovery IAW applicable directives and in a timely manner. Transferred/accepted track symbology IAW applicable directives.

3.7.3.25.2. **Q-.** Conducted hand off/recovery or transferred/accepted track symbology with errors, omissions or delays that did not jeopardize mission accomplishment.

3.7.3.25.3. **U.** Conducted hand off/recovery or transferred/accepted track symbology with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.7.3.26. Area 26--Radio/Telephone (R/T) Procedures:**

3.7.3.26.1. **Q.** Employed R/T procedures IAW AFI 11-214, AFTTP 3-1, applicable Joint and Combined communications procedures, and Wing standards.

3.7.3.26.2. **Q-.** Employed R/T procedures with errors or omissions that did not jeopardize mission accomplishment.

3.7.3.26.3. **U.** Employed R/T procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.7.3.27. Area 27--Postmission:**

3.7.3.27.1. **Q.** Received, copied, and relayed post attack information such as fuel, armament, battle damage assessments (BDAs), and inflight reports. Passed information to appropriate crewmembers and external agencies (as applicable) IAW applicable directives.

3.7.3.27.2. **Q-.** Accomplished postmission duties with errors or omissions that did not jeopardize mission accomplishment or battle management.

3.7.3.27.3. **U.** Accomplished postmission duties with errors or omissions that could have jeopardized mission accomplishment or battle management.

**3.7.3.28. Area 28--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.7.3.28.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.7.3.28.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.7.3.28.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.7.3.29. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph [2.4](#).

3.7.3.29.1. **Area 29**--Instructional Ability.

3.7.3.29.2. **Area 30**--Briefings/Critique.

3.7.3.29.3. **Area 31**--Demonstration and Performance.

**Table 3.8. Weapons Director Evaluation Matrix.**

Evaluation Areas	Qual	Instr	Mission Profiles			
			OCA Air-to- Air	DCA Air-to- Air	OCA Air-to- Surface	Air Refuel- ing
1. Mission Planning	R		R	R	R	R
2. Briefings/Debriefings	R		R	R	R	R
3. Prepermission Requirements	R					
4. Preflight Inspections	R					
5. Before Start	R					
6. Internal/External Coordination	R		R	R	R	R
7. Outbound Procedures	R					
8. Console Operations and Displays	R		R	R	R	R
9. Communications Selection and Use	R		R	R	R	R
10. OPSEC/COMSEC/ Authentication Procedures			R	R	R	R
11. Emergency Procedures and Equipment	R					
12. Safety (CRITICAL)	R		R	R	R	R
13. Sensors	R		R	R	R	R
14. Weather Information	R					
15. Special Instructions (SPINS)/Rules of Engage- ment (ROE) (CRITICAL)			R	R	R	R
16. AWACS Monitor Procedures (CRITICAL)	R					
17. Airspace Coordination	R					
18. Check In/Identification Procedures	R		R	R	R	R



Evaluation Areas	Qual	Instr	Mission Profiles			
			OCA Air-to- Air	DCA Air-to- Air	OCA Air-to- Surface	Air Refuel- ing
19. ACT/DACT/Intercept Control (CRITICAL)	R					
20. Offensive Counter Air (OCA) Air-to-Air Control (CRITICAL)			R			
21. Defensive Counter Air (DCA) Air-to-Air Control (CRITICAL)				R		
22. Offensive Counter Air (OCA) Strike Control (CRITICAL)					R	
23. Air Refueling Control (CRITICAL)						R
24. Commit	R		R	R	R	R
25. Hand Off/Recovery	R		R	R	R	R
26. Radio/Telephone (R/T) Procedures	R		R	R	R	R
27. Post-mission	R		R	R	R	R
28. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R	R	R	R
29. Instructional Ability		R				
30. Briefings/Critiques		R				
31. Demonstration and Performance		R				
<b>R</b> = Required Evaluation area.						

### 3.8. Air Surveillance Officer Qualification and Mission Flight Evaluations:

3.8.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of an Air Surveillance Officer (ASO) and Instructor Air Surveillance Officer (IASO).

3.8.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.8.1.2. Mission evaluations will encompass all areas identified in the evaluation matrix for the mission profile performed. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight.

3.8.1.3. ASO qualification evaluations will be conducted on a live E-3 sortie while the examinee actively supervises a surveillance team conducting surveillance activities. ASO mission evalua-

tions may be accomplished in the simulator only if no live E-3 mission profile sorties are available.

3.8.1.4. "Fully qualified" ASOs are those who have completed Block 30/35 Difference Training and Electronic Combat Officer (ECO) qualification. These ASOs must sit in the seat as ECO for a mission or a portion of the mission sufficient for the SEFE to confirm the examinee is fully competent in ECO duties (ECO Areas 11, 12, 13 and 19). This requirement may be evaluated in the simulator if no live Block 30/35 sorties are available.

3.8.1.4.1. A fully qualified ASO's completion of an IASO evaluation which includes demonstration of competence as an ECO qualifies the IASO to perform as an IECO or ECO. A fully qualified ASO's completion of an ASO evaluation which includes demonstration of competence as an ECO qualifies the ASO to perform as an ECO.

### 3.8.2. Evaluation Objectives:

3.8.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

3.8.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.8.3. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

#### 3.8.3.1. Area 1--Mission Planning:

3.8.3.1.1. **Q.** Conducted mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Checked all factors applicable to assigned mission (e.g., ROE, ACO, SPINS, weather, LOAs, ATO, lessons learned, surveillance training requirements, E-3 employment capabilities, and terrain relief maps). Obtained/developed and coordinated an ID plan that met mission needs. Completed required mission forms. Ensured communications worksheet met surveillance mission needs. Read and initialed for all items in the FCIF and read files.

3.8.3.1.2. **Q-.** Conducted mission planning with errors or omissions that did not jeopardize mission accomplishment. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, lessons learned, surveillance training requirements, E-3 employment capabilities, and terrain relief maps) with errors or omissions that did not jeopardize the mission. Completed required mission forms or coordinated ID plan and/or communications worksheet with errors or omissions that did not jeopardize mission accomplishment.

3.8.3.1.3. **U.** Conducted mission planning with errors or omissions that could have jeopardized mission accomplishment. Failed to comply with directives. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, lessons learned, surveillance training requirements, E-3 employment capabilities, and terrain relief maps) with errors or omissions that could have jeopardized mission accomplishment. Failed to obtain/develop and/or coordinate an effective ID plan, or ID plan did not meet mission needs. Did

not complete required mission forms. Did not ensure communications worksheet met surveillance mission needs. Failed to read and initial for all items in the FCIF and read files.

**3.8.3.2. Area 2--Briefings/Debriefings:**

3.8.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives and ensured the surveillance team/aircrew were thoroughly briefed on all aspects of the surveillance mission. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings IAW applicable directives.

3.8.3.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment.

3.8.3.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment.

**3.8.3.3. Area 3--Premission Requirements:**

3.8.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.8.3.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.8.3.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.8.3.4. Area 4--Preflight Inspections:**

3.8.3.4.1. **Q.** Performed preflight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

3.8.3.4.2. **Q-.** Performed preflight inspections and/or determined equipment status that may have affected the mission with errors or omissions that did not jeopardize mission accomplishment.

3.8.3.4.3. **U.** Performed preflight inspections and/or determined equipment status that may have affected the mission with errors or omissions that could have jeopardized mission accomplishment.

**3.8.3.5. Area 5--Before Start:**

3.8.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

3.8.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.8.3.5.3. **U.** Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.8.3.6. Area 6--Outbound Procedures:**

3.8.3.6.1. **Q.** Performed equipment set up and checkout to ensure operation was IAW applicable directives. Ensured timely reporting of status for console, communications, and other operator tasked equipment for the weapons section.

3.8.3.6.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that did not jeopardize mission accomplishment.

3.8.3.6.3. **U.** Performed equipment set up, checkout, or status reporting with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.8.3.7. Area 7--Assuming Station Responsibility:**

3.8.3.7.1. **Q.** Accomplished systems checkout and assumed station responsibility IAW applicable directives and in a timely manner. Notified the MCC of the status of all required items not accomplished by the time on station was declared, and updated MCC as items were accomplished. Ensured surveillance section completed assigned tasks, as directed and in a timely manner. Established voice communications with voice/data link participants as required.

3.8.3.7.2. **Q-.** Accomplished systems checkout and assumed station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment. Notified the MCC of the status of most required items not accomplished by the time on station was declared, and/or delayed in updating MCC as items were accomplished.

3.8.3.7.3. **U.** Failed to comply with established requirements, procedures or directives for systems checkout and/or station assumption responsibility, causing confusion, errors, omissions, or delays that could have jeopardized mission accomplishment. Failed to notify the MCC of the status of required items not accomplished by the time on station was declared, and/or failed to update the MCC as items were accomplished.

**3.8.3.8. Area 8--Console Operations and Displays:**

3.8.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

3.8.3.8.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

3.8.3.8.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that could have jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.8.3.9. Area 9--Internal/External Coordination:**

3.8.3.9.1. **Q.** Coordinated with the E-3 crew and/or external agencies/participants. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion, or delay.

3.8.3.9.2. **Q-.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

3.8.3.9.3. **U.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.8.3.10. Area 10--Communications Selection and Use:**

3.8.3.10.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives. Transmissions were concise with proper terminology. Communications selection and use optimized situational awareness.

3.8.3.10.2. **Q-.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment. Transmissions contained excessive, extraneous matter, or employed non-standard terminology.

3.8.3.10.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that could have jeopardized mission accomplishment. Improper R/T procedures caused confusion that could have reduced mission effectiveness. Communications selection and use contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.8.3.11. Area 11--On Station Procedures:**

3.8.3.11.1. **Q.** Performed on station procedures IAW applicable directives. Used all available assets to ensure the assigned surveillance mission was accomplished. Led the surveillance team in recognition, tracking, identification and forward/lateral tell of all data trails within the assigned/selected (AOR) to successfully accomplish mission tasking in a timely manner.

3.8.3.11.2. **Q-.** Performed on station procedures with errors, omissions, or delays that did not jeopardize mission accomplishment. Slow to ensure that every data trail within the assigned/selected AOR was recognized, tracked, identified and told.

3.8.3.11.3. **U.** Performed on station procedures with errors, omissions, or delays that could have jeopardized mission accomplishment. Failed to ensure that every data trail within the assigned/selected AOR was recognized, tracked, identified and told.

**3.8.3.12. Area 12--EA/EP Procedures:**

3.8.3.12.1. **Q.** Recognized, reported, and countered radar, IFF, and/or communications (voice and/or data link) Electronic Attack (EA). Employed and evaluated the effects of Electronic Protection (EP) procedures IAW mission tasking and directives. Assigned and directed the surveillance team responses as required.

3.8.3.12.2. **Q-**. Recognized, reported, and countered radar, IFF, and/or communications EA, employed and/or evaluated the effects of EP procedures, and/or assigned and directed the surveillance team responses with errors or omissions that did not jeopardize mission accomplishment.

3.8.3.12.3. **U**. Recognized, reported, and countered radar, IFF, and/or communications EA, employed and/or evaluated the effects of EP procedures, and/or assigned and directed the surveillance team responses with errors or omissions that could have jeopardized mission accomplishment.

**3.8.3.13. Area 13--Sensor Operations (CRITICAL):**

3.8.3.13.1. **Q**. Configured and optimized sensors to accomplish assigned mission. Monitored, recognized, analyzed, took corrective measures, and reported degraded sensor performance. Assisted the ART in identifying and correcting radar and IFF/SIF problems. Demonstrated a clear understanding of sensor theory, processing, and optimization.

3.8.3.13.2. **Q-**. Employed sensors with errors, omissions or delays that did not jeopardize mission accomplishment. Demonstrated minor deviations regarding sensor theory, processing, and/or optimization.

3.8.3.13.3. **U**. Failed to properly configure/optimize sensors for assigned mission. Employed sensors with errors, omissions or delays that could have jeopardized mission accomplishment. Demonstrated a lack of understanding of sensor theory, processing, and/or optimization.

**NOTE:**

ESS operations will be covered on initial qualification evaluations and subsequent evaluations. Other special sensors will not be covered until after completion of MQT.

**3.8.3.14. Area 14--Data Link Operations:**

3.8.3.14.1. **Q**. Ensured data links were established and maintained IAW applicable directives. Analyzed and troubleshoot data link operations as required. Assisted technicians in troubleshooting link hardware problems as required. Monitored data link coordination net and/or track supervision net as required. Displayed a thorough understanding of data link operations.

3.8.3.14.2. **Q-**. Performed data link procedures with errors, omissions, or delays that did not jeopardize mission accomplishment. Displayed minor deviations of understanding of data link operations.

3.8.3.14.3. **U**. Failed to maintain data links IAW published directives. Incorrect procedures caused confusion or delays that could have jeopardized mission accomplishment. Displayed inadequate understanding of data link operations.

**3.8.3.15. Area 15--Air Refueling Procedures:**

3.8.3.15.1. **Q**. Accomplished air refueling procedures IAW applicable directives and in a timely manner.

3.8.3.15.2. **Q-**. Accomplished air refueling procedures with errors, omissions or delays that did not jeopardize mission accomplishment.

3.8.3.15.3. **U.** Accomplished air refueling procedures with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.8.3.16. Area 16--AWACS Monitor Procedures (CRITICAL):**

3.8.3.16.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

3.8.3.16.2. **Q-.** Performed AWACS Monitor procedures with minor errors, omissions or delays that did not jeopardize E-3 safety.

3.8.3.16.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors, omissions or delays that could have jeopardized E-3 safety.

**3.8.3.17. Area 17--Emergency Procedures and Equipment:**

3.8.3.17.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crew members without delay.

3.8.3.17.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.8.3.17.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.8.3.18. Area 18--OPSEC/COMSEC/Authentication Procedures:**

3.8.3.18.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

3.8.3.18.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

3.8.3.18.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that could have jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

**3.8.3.19. Area 19--Safety (CRITICAL):**

3.8.3.19.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.8.3.19.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.8.3.20. Area 20--Mission Execution/Battle Management (CRITICAL):**

3.8.3.20.1. **Q.** Developed and implemented the surveillance team plan of execution. Contracted with other sections of the crew and external agencies to execute an effective plan. Conducted the mission with a sense of understanding and comprehension.

3.8.3.20.2. **Q-.** Plans, contracts, or decisions degraded or prevented accomplishment of a portion of the surveillance mission. Surveillance resources were not always effectively used to the point that specific mission objectives were not achieved. Conducted the mission with errors, omissions or delays that did not jeopardize mission accomplishment.

3.8.3.20.3. **U.** Plans, contracts, or decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Conducted the mission with errors, omissions or delays that could have jeopardized mission accomplishment. Demonstrated poor judgment in the use of surveillance assets to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.

**3.8.3.21. Area 21--Transferring Station Responsibility:**

3.8.3.21.1. **Q.** Established communications with relieving unit, verified link status, and ensured effective transfer of link responsibility to relieving aircraft was accomplished when directed. Briefed relieving unit on appropriate surveillance information. Confirmed relieving unit had assumed surveillance station responsibilities. Debriefed voice/data net participants as required.

3.8.3.21.2. **Q-.** Performed transferring station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.8.3.21.3. **U.** Failed to debrief voice/data net participants, as required. Transferred station responsibilities with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.8.3.22. Area 22--Inbound Procedures:**

3.8.3.22.1. **Q.** Performed inbound procedures IAW applicable directives.

3.8.3.22.2. **Q-.** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.8.3.22.3. **U.** Performed inbound procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.8.3.23. Area 23--Descent/Before Leaving Aircraft:**

3.8.3.23.1. **Q.** Completed descent/before leaving aircraft procedures IAW applicable directives. Accomplished inventory of surveillance classified materials. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.

3.8.3.23.2. **Q-.** Minor deviations observed when accomplishing descent/before leaving aircraft procedures. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.

3.8.3.23.3. **U.** Failed to accomplish descent/before leaving aircraft procedures IAW applicable directives. Failed to accomplish an inventory of surveillance classified materials. Failed to complete logs, forms and reports as required. Failed to enter all discrepancies in AFTO Forms 781.



**3.8.3.24. Area 24--Integration of Intelligence Assets:**

3.8.3.24.1. **Q.** Coordinated via voice or data links with intelligence assets (external agencies, Special Information System/Voice Product Net (SIS/VPN), internal assets, other) and disseminated information in a manner that enhanced aircrew awareness and mission accomplishment.

3.8.3.24.2. **Q-.** Coordinated with intelligence assets and disseminated intelligence information with minor errors or omissions that did not degrade aircrew awareness or jeopardize mission accomplishment.

3.8.3.24.3. **U.** Failed to coordinate with intelligence assets or to disseminate intelligence information. Deviations could have degraded aircrew awareness or could have jeopardized mission accomplishment.

**3.8.3.25. Area 25--E-3 Self Defense:**

3.8.3.25.1. **Q.** Identified threats to the E-3 and notified the appropriate crewmembers. Performed retrograde procedures as directed. Familiar with affects of retrograde actions on radio and sensor coverage and performance.

3.8.3.25.2. **Q-.** Identified threats to the E-3, notified appropriate crewmembers, performed retrograde procedures, and explained affects of retrograde actions on radio and/or sensor coverage and/or performance with minor errors or omissions that did not jeopardize E-3 safety or mission accomplishment.

3.8.3.25.3. **U.** Failed to identify threats to the E-3, or to notify appropriate crewmembers. Unfamiliar with and/or unable to explain affects of retrograde actions on radio and/or sensor coverage and/or performance. Performed E-3 self defense actions with errors or omissions that could have jeopardized E-3 safety or mission accomplishment.

**3.8.3.26. Area 26--Special Instructions (SPINS)/Rules of Engagement (ROE) (CRITICAL):**

3.8.3.26.1. **Q.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, Search and Rescue (SAR) procedures, and/or other SPINS guidance were understood, briefed to the surveillance team, and executed as appropriate in a timely manner. Maintained acceptable situational awareness on how the surveillance team implemented these procedures.

3.8.3.26.2. **Q-.** Implemented SPINS/ROE/ACO procedures as directed by the theater commander with errors or omissions that did not jeopardize mission accomplishment. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood, briefed to the surveillance team, and/or executed with errors, omissions or delays that did not jeopardize mission accomplishment. Situational awareness of implementation was maintained with omissions that did not jeopardize mission accomplishment.

3.8.3.26.3. **U.** Failed to implement SPINS/ROE/ACO procedures as directed by the theater commander. Identification (e.g. Bogey, Bandit, Hostile) procedures, engagement authorization, SAR procedures, and/or other SPINS guidance were understood and briefed to the surveillance team with errors, omissions or delays that could have jeopardized mission accomplishment. Examinee failed to maintain an acceptable level of situational awareness on how the surveillance team implemented these procedures.

**3.8.3.27. Area 27--Aircraft Discipline/Crew Coordination (CRITICAL):**

3.8.3.27.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.8.3.27.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.8.3.27.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.8.3.28. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

3.8.3.28.1. **Area 28--Instructional Ability.**

3.8.3.28.2. **Area 29--Briefings/Critique.**

3.8.3.28.3. **Area 30--Demonstration and Performance.**

**Table 3.9. Air Surveillance Officer Evaluation Matrix.**

Evaluation Areas	Qual	Instr	Mission Profiles		
			Tactical	Air Sovereignty	CD
1. Mission Planning	R		R	R	R
2. Briefings/Debriefings	R		R	R	R
3. Permission Requirements	R				
4. Preflight Inspections	R				
5. Before Start	R				
6. Outbound Procedures	R				
7. Assuming Station Procedures	R		R	R	R
8. Console Operations and Displays	R		R	R	R
9. Internal/External Coordination	R		R	R	R
10. Communications Selection and Use	R		R	R	R
11. On Station Procedures	R		R	R	R
12. EA/EP Procedures	R		R	R	R
13. Sensor Operations (CRITICAL)	R		R	R	R
14. Data Link Operations	R		R	R	R
15. Air Refueling Procedures	R				
16. AWACS Monitor Procedures (CRITICAL)	R		R	R	R

Evaluation Areas	Qual	Instr	Mission Profiles		
			Tactical	Air Sovereignty	CD
17. Emergency Procedures and Equipment	R				
18. OPSEC/COMSEC/Authentication Procedures	R		R	R	R
19. Safety (CRITICAL)	R		R	R	R
20. Mission Execution/Battle Management (CRITICAL)	R		R	R	R
21. Transferring Station Responsibility	R		R	R	R
22. Inbound Procedures	R				
23. Descent/Before Leaving Aircraft	R				
24. Integration of Intelligence Assets			R	R	R
25. E-3 Self Defense			R	R	R
26. Special Instructions (SPINS)/Rules Of Engagement (ROE) (CRITICAL)			R	R	R
27. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R	R	R
28. Instructional Ability		R			
29. Briefings/Critique		R			
30. Demonstration and Performance		R			
<b>R</b> = Required evaluation area.					

### 3.9. Electronic Combat Officer Qualification and Mission Flight Evaluations:

3.9.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of Electronic Combat Officer (ECO) and Instructor Electronic Combat Officer (IECO).

3.9.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.9.1.2. Mission evaluations will encompass all areas identified in the evaluation matrix for the mission profile performed. The examinee must demonstrate a degree of knowledge and proficiency essential to successful mission accomplishment, profile execution, and safety of flight.

3.9.1.3. ECO qualification evaluations will be conducted on a live Block 30-35 E-3 sortie while the examinee actively manipulates the Electronic Support Measures (ESM) to meet specific mission taskings. ECO mission evaluations may be accomplished in the simulator only if no live E-3 mission profile sorties are available.

### 3.9.2. Evaluation Objectives:

3.9.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely, effectively, using appropriate flight manuals, directives, and operating procedures.

3.9.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.9.3. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

#### 3.9.3.1. Area 1--Mission Planning:

3.9.3.1.1. **Q.** Conducted mission planning which accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Checked all factors applicable to assigned mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts). Reviewed FCIF and assessed operational impact. Coordinated an ID plan which met mission needs. Completed required mission forms. Ensured communications worksheet met needs for ESM mission accomplishment. Accomplished ESM database selection, and recommended console configurations to the MCC. Read and initialed for all items in the FCIF and read files.

3.9.3.1.2. **Q-.** Conducted mission planning with errors or omissions that did not jeopardize mission accomplishment. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts) with errors or omissions that did not jeopardize mission accomplishment. Completed required mission forms, coordinated ID plan and/or communications worksheet, accomplished ESM database selection, and/or recommended console configurations with errors or omissions that did not jeopardize mission accomplishment.

3.9.3.1.3. **U.** Conducted mission planning with errors or omissions that could have jeopardized mission accomplishment. Failed to comply with directives. Checked all factors applicable to the mission (e.g. ROE, ACO, SPINS, weather, LOAs, ATO, Lessons Learned, E-3 employment capabilities, and aeronautical charts) with errors or omissions that could have jeopardized mission accomplishment. Failed to coordinate an effective ID plan, or ID plan did not meet ESM mission needs. Did not complete required mission forms. Did not ensure communications worksheet met ESM mission needs. Accomplished ESM database selection and/or recommended console configurations with errors or omissions that could have jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

#### 3.9.3.2. Area 2--Briefings/Debriefings:

3.9.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives and ensured the surveillance team/aircrew were thoroughly briefed on all aspects of the surveillance mission. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings IAW applicable directives.

3.9.3.2.2. **Q-**. Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment.

3.9.3.2.3. **U**. Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment. Planned all areas necessary to conduct tasked mission(s) and conducted aircrew briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment.

**3.9.3.3. Area 3--Premission Requirements:**

3.9.3.3.1. **Q**. Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.9.3.3.2. **Q-**. Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions which did not jeopardize mission accomplishment.

3.9.3.3.3. **U**. Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.9.3.4. Area 4--Preflight Inspections:**

3.9.3.4.1. **Q**. Performed preflight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

3.9.3.4.2. **Q-**. Performed preflight inspections and/or determined equipment status that may have affected the mission with errors or omissions that did not jeopardize mission accomplishment.

3.9.3.4.3. **U**. Performed preflight inspections and/or determined equipment status that may have affected the mission with errors or omissions that could have jeopardized mission accomplishment.

**3.9.3.5. Area 5--Before Start:**

3.9.3.5.1. **Q**. Performed before start procedures IAW applicable directives.

3.9.3.5.2. **Q-**. Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.9.3.5.3. **U**. Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.9.3.6. Area 6--Outbound Procedures:**

3.9.3.6.1. **Q**. Performed equipment set up and checkout to ensure operation was IAW applicable directives. Reported status for console, communications, and other operator tasked equipment in a timely manner.

3.9.3.6.2. **Q-**. Performed equipment set up, checkout, or status reporting with errors, omissions or delays that did not jeopardize mission accomplishment.

3.9.3.6.3. **U**. Performed equipment set up, checkout, or status reporting with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.9.3.7. Area 7--Assuming Station Responsibility:**

3.9.3.7.1. **Q**. Accomplished ESM system checkout and assumed station responsibility IAW applicable directives and in a timely manner, and notified the ASO and MCC of the status. Established voice communications with ESM participants as required. Initiated ESM operations and configured ESM for mission use. Coordinated with ASO as required.

3.9.3.7.2. **Q-**. Accomplished ESM checkout and assumed station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.9.3.7.3. **U**. Failed to comply with established requirements, procedures or directives for ESM system checkout and/or station assumption responsibility, causing confusion, errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.9.3.8. Area 8--Console Operations and Displays:**

3.9.3.8.1. **Q**. Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

3.9.3.8.2. **Q-**. Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

3.9.3.8.3. **U**. Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that could have jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.9.3.9. Area 9--Internal/External Coordination:**

3.9.3.9.1. **Q**. Coordinated with the E-3 crew and/or external agencies/participants. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion, or delay.

3.9.3.9.2. **Q-**. Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

3.9.3.9.3. **U**. Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.9.3.10. Area 10--Communications Selection and Use:**

3.9.3.10.1. **Q**. Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives. Transmissions were

concise with proper terminology. Communications selection and use optimized situational awareness.

3.9.3.10.2. **Q-.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment. Transmissions contained excessive, extraneous matter, or employed non-standard terminology.

3.9.3.10.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that could have jeopardized mission accomplishment. Improper R/T procedures caused confusion that could have reduced mission effectiveness. Communications selection and use contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.9.3.11. Area 11--ESM Operations (CRITICAL):**

3.9.3.11.1. **Q.** Manipulated system/data base to meet mission requirements and advised crew of system status. Monitored TDs and SDs and identified loss of/inconsistent data. Monitored and controlled ESM information in data links.

3.9.3.11.2. **Q-.** Performed ESM operations with errors or omissions that did not jeopardize mission accomplishment.

3.9.3.11.3. **U.** Performed ESM operations with errors or omissions that could have jeopardized mission accomplishment.

**3.9.3.12. Area 12--Signal of Interest Location and Reporting (CRITICAL):**

3.9.3.12.1. **Q.** Used active and passive means to locate signals of interest (SOIs). Reported SOIs to crew and external agencies as required. Maintained logs IAW applicable directives.

3.9.3.12.2. **Q-.** Performed SOI location and reporting with errors or omissions that did not jeopardize mission accomplishment.

3.9.3.12.3. **U.** Performed SOI location and reporting with errors or omissions that could have jeopardized mission accomplishment.

**3.9.3.13. Area 13--ESM System Analysis and Troubleshooting:**

3.9.3.13.1. **Q.** Recognized and identified problems and determined their causes. Coordinated with technicians to identify and correct hardware problems. Adjusted ESM parameters and/or recommended orbit changes to overcome ESM problems as required.

3.9.3.13.2. **Q-.** Performed ESM system analysis and troubleshooting with errors or omissions that did not jeopardize mission accomplishment.

3.9.3.13.3. **U.** Performed ESM system analysis and troubleshooting with errors or omissions that could have jeopardized mission accomplishment.

**3.9.3.14. Area 14--Air Refueling Procedures:**

3.9.3.14.1. **Q.** Accomplished air refueling procedures IAW applicable directives and in a timely manner.

3.9.3.14.2. **Q-.** Accomplished air refueling procedures with errors, omissions or delays that did not jeopardize mission accomplishment.

3.9.3.14.3. **U.** Accomplished air refueling procedures with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.9.3.15. Area 15--AWACS Monitor Procedures (CRITICAL):**

3.9.3.15.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

3.9.3.15.2. **Q-.** Performed AWACS Monitor procedures with minor errors, omissions or delays that did not jeopardize E-3 safety.

3.9.3.15.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors, omissions or delays that could have jeopardized E-3 safety.

**3.9.3.16. Area 16--Emergency Procedures and Equipment:**

3.9.3.16.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crew members without delay.

3.9.3.16.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.9.3.16.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation or could have jeopardized mission accomplishment.

**3.9.3.17. Area 17--OPSEC/COMSEC/Authentication Procedures:**

3.9.3.17.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

3.9.3.17.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

3.9.3.17.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that could have jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

**3.9.3.18. Area 18--Safety (CRITICAL):**

3.9.3.18.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.9.3.18.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.9.3.19. Area 19--Mission Execution/Battle Management (CRITICAL):**



3.9.3.19.1. **Q.** Developed and implemented the ESM plan of execution. Contracted with other sections of the crew and external agencies to execute an effective plan. Conducted the mission with a sense of understanding and comprehension.

3.9.3.19.2. **Q-.** Plans, contracts, or decisions degraded or prevented accomplishment of a portion of the ESM mission. Resources were not always effectively used to the point that specific mission objectives were not achieved. Errors, omissions or delays did not jeopardize mission accomplishment.

3.9.3.19.3. **U.** Plans, contracts, or decisions, or lack thereof, resulted in failure to accomplish the assigned mission. Errors, omissions or delays could have jeopardized mission accomplishment. Demonstrated poor judgment in the use of ESM assets to the extent that overall mission objectives were not achieved. Regulations/directives were intentionally violated.

**3.9.3.20. Area 20--Inbound Procedures:**

3.9.3.20.1. **Q.** Performed inbound procedures IAW applicable directives.

3.9.3.20.2. **Q-.** Performed inbound procedures with errors, omissions or delays that did not jeopardize mission accomplishment.

3.9.3.20.3. **U.** Performed inbound procedures with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.9.3.21. Area 21--Descent/Before Leaving Aircraft:**

3.9.3.21.1. **Q.** Completed descent/before leaving aircraft procedures IAW applicable directives. Accomplished inventory of ESM related classified materials. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.

3.9.3.21.2. **Q-.** Minor deviations observed when accomplishing descent/before leaving aircraft procedures. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.

3.9.3.21.3. **U.** Failed to accomplish descent/before leaving aircraft procedures IAW applicable directives. Failed to accomplish an inventory of ESM related classified materials. Failed to complete logs, forms and reports as required. Failed to enter all discrepancies in AFTO Forms 781.

**3.9.3.22. Area 22--Integration of Intelligence Assets:**

3.9.3.22.1. **Q.** Coordinated ESM data via voice or data links with intelligence assets (external agencies, SIS/VPN, internal assets, other) and disseminated ESM information in a manner that enhanced aircrew awareness and mission accomplishment.

3.9.3.22.2. **Q-.** Coordinated ESM data with intelligence assets and disseminated ESM information with minor errors or omissions that did not degrade aircrew awareness or mission accomplishment.

3.9.3.22.3. **U.** Failed to coordinate ESM data with intelligence assets or to disseminate ESM information. Deviations could have degraded aircrew awareness or mission accomplishment.

**3.9.3.23. Area 23--E-3 Self Defense:**

3.9.3.23.1. **Q.** Identified threats to the E-3 and notified the appropriate crewmembers. Performed retrograde procedures as directed. Familiar with affects of retrograde actions on ESM coverage and performance.

3.9.3.23.2. **Q-.** Identified threats, notified appropriate crewmembers, performed retrograde procedures, and explained affects of retrograde actions with minor errors and omissions that did not jeopardize E-3 safety or mission accomplishment.

3.9.3.23.3. **U.** Failed to identify threats or notify appropriate crewmembers. Unfamiliar with and/or unable to explain affects of retrograde actions on ESM coverage or performance. Errors and omissions could have jeopardized E-3 safety or mission accomplishment.

**3.9.3.24. Area 24--Rules of Engagement (ROE) (CRITICAL):**

3.9.3.24.1. **Q.** Implemented ROE procedures for peacetime, transition and wartime conditions as required. Recognized hostile/harassment acts, and accomplished safe passage procedures as required. Responded to ROE situation according to directives.

3.9.3.24.2. **Q-.** Implemented ROE procedures with errors or omissions that did not adversely effect completion of ROE actions.

3.9.3.24.3. **U.** Implemented ROE procedures with errors or omissions that could adversely effect completion of ROE actions.

**3.9.3.25. Area 25--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.9.3.25.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.9.3.25.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.9.3.25.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.9.3.26. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

3.9.3.26.1. **Area 26--Instructional Ability.**

3.9.3.26.2. **Area 27--Briefings/Critique.**

3.9.3.26.3. **Area 28--Demonstration and Performance.**

**Table 3.10. Electronic Combat Officer Evaluation Matrix.**

Evaluation Areas	Qual	Instr	Mission Profiles		
			Tactical	Air Sovereignty	CD
1. Mission Planning	R		R	R	R
2. Briefings/Debriefings	R		R	R	R
3. Prepermission Requirements					

Evaluation Areas	Qual	Instr	Mission Profiles		
			Tactical	Air Sovereignty	CD
4. Preflight Inspections	R				
5. Before Start	R				
6. Outbound Procedures	R				
7. Assuming Station Procedures	R				
8. Console Operations and Displays	R		R	R	R
9. Internal/External Coordination	R		R	R	R
10. Communications Selection and Use	R		R	R	R
11. ESM Operations (CRITICAL)	R		R	R	R
12. Signal of Interest Location and Reporting (CRITICAL)	R		R	R	R
13. ESM System Analysis and Troubleshooting	R		R	R	R
14. Air Refueling Procedures	R				
15. AWACS Monitor Procedures (CRITICAL)	R		R	R	R
16. Emergency Procedures and Equipment	R				
17. OPSEC/COMSEC/Authentication Procedures	R		R	R	R
18. Safety (CRITICAL)	R		R	R	R
19. Mission Execution/Battle Management (CRITICAL)	R		R	R	R
20. Inbound Procedures	R				
21. Descent/Before Leaving Aircraft	R				
22. Integration of Intelligence Assets			R	R	R
23. E-3 Self Defense			R	R	R
24. Rules of Engagement (ROE) (CRITICAL)			R	R	R
26. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R	R	R
25. Instructional Ability		R			
26. Briefings/Critique		R			
27. Demonstration/Performance		R			
R = Required evaluation area.					

### 3.10. Senior Surveillance Technician Qualification and Mission Flight Evaluations:

3.10.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of a Senior Surveillance Technician (SST) and Instructor Senior Surveillance Technician (ISST).

3.10.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.10.1.2. Mission evaluations will encompass all areas identified in the evaluation matrix for the mission profile performed. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.10.1.3. SST qualification evaluations will be conducted on a live E-3 sortie while the examinee actively assists the ASO in supervising a surveillance team conducting surveillance activities. SST mission evaluations may be accomplished in the simulator only if no live E-3 mission profile sorties are available.

3.10.1.4. Completion of an ISST evaluation which includes demonstration of competence as an AST qualifies the ISST to perform as an IAST or AST. Completion of an SST evaluation which includes demonstration of competence as an AST qualifies the SST to perform as an AST.

### 3.10.2. **Evaluation Objectives:**

3.10.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

3.10.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.10.3. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2, and any criteria listed within the individual areas.

#### 3.10.3.1. **Area 1--Mission Planning:**

3.10.3.1.1. **Q.** Performed and assisted the ASO in accomplishing mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Read and initialed for all items in the FCIF and read files.

3.10.3.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.1.3. **U.** Performed mission planning with errors or omissions that could have jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

#### 3.10.3.2. **Area 2--Briefings/Debriefings:**

3.10.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.10.3.2.2. **Q-**. Attended all required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omission that did not jeopardize mission accomplishment.

3.10.3.2.3. **U**. Failed to attend required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.3. Area 3--Premission Requirements:**

3.10.3.3.1. **Q**. Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.10.3.3.2. **Q-**. Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.3.3. **U**. Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.4. Area 4--Preflight Inspections:**

3.10.3.4.1. **Q**. Performed preflight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

3.10.3.4.2. **Q-**. Performed preflight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.4.3. **U**. Performed preflight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.5. Area 5--Before Start:**

3.10.3.5.1. **Q**. Performed before start procedures IAW applicable directives.

3.10.3.5.2. **Q-**. Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.5.3. **U**. Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.6. Area 6--Outbound Procedures:**

3.10.3.6.1. **Q**. Performed set up, check-out, and ensured reporting of status for console, communications, and other operator-tasked equipment to ensure operation was IAW applicable directives.

3.10.3.6.2. **Q-**. Performed set up, check-out, or status reporting with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.6.3. **U**. Performed set up, check-out, or status reporting with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.7. Area 7--Assuming Station Procedures:**

3.10.3.7.1. **Q.** Performed tasks IAW applicable directives to achieve station assumption.

3.10.3.7.2. **Q-.** Performed station assumption tasks with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.7.3. **U.** Performed station assumption tasks with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.8. Area 8--Console Operations and Displays:**

3.10.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

3.10.3.8.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

3.10.3.8.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that could have jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.10.3.9. Area 9--Communication/Coordination:**

3.10.3.9.1. **Q.** Monitored and/or assigned radios/mission nets IAW mission tasking and as directed. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations utilizing proper R/T procedures without misunderstanding, confusion, or delay.

3.10.3.9.2. **Q-.** Monitored and/or used assigned radios/mission nets IAW mission tasking and as directed. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations with errors or omissions, utilizing improper R/T procedures that did not impact mission effectiveness.

3.10.3.9.3. **U.** Failed to monitor and/or use assigned radios/mission nets. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations, with errors or omissions, utilizing improper R/T procedures that reduces mission effectiveness or could have jeopardized mission accomplishment.

**3.10.3.10. Area 10--Sensors:**

3.10.3.10.1. **Q.** Recognized and reported degraded sensor performance IAW applicable directives and as directed by the ASO.

3.10.3.10.2. **Q-.** Recognized or reported degraded sensor performance with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.10.3. **U.** Failed to recognize or report degraded sensor performance that could have jeopardized mission accomplishment.

**3.10.3.11. Area 11--AWACS Monitor (CRITICAL):**

3.10.3.11.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

3.10.3.11.2. **Q-.** Performed AWACS Monitor procedures with minor errors, omissions or delays that did not jeopardize E-3 safety.

3.10.3.11.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors, omissions or delays that could have jeopardized E-3 safety.

**3.10.3.12. Area 12--Tracking (CRITICAL):**

3.10.3.12.1. **Q.** Supervised/conducted tracking (recognition, initiation, continuity, and resolution of track attention conditions) IAW applicable directives.

3.10.3.12.2. **Q-.** Supervised/conducted tracking or resolution of track attention conditions with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.12.3. **U.** Supervised/conducted tracking or resolution of track attention conditions with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.13. Area 13--Identification:**

3.10.3.13.1. **Q.** Conducted identification function IAW mission tasking and as directed.

3.10.3.13.2. **Q-.** Conducted identification function with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.13.3. **U.** Conducted identification function with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.14. Area 14--Tell Functions:**

3.10.3.14.1. **Q.** Supervised/conducted required tell functions (voice/data link) IAW mission tasking and as directed.

3.10.3.14.2. **Q-.** Supervised/conducted required tell functions (voice/data link) with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.14.3. **U.** Supervised/conducted required tell functions (voice/data link) with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.15. Area 15--OPSEC/COMSEC/Authentication Procedures:**

3.10.3.15.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

3.10.3.15.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

3.10.3.15.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that could have jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

**3.10.3.16. Area 16--EA/EP Procedures:**

3.10.3.16.1. **Q.** Recognized, located, tracked, and reported EA emitters, and employed EP procedures IAW mission tasking and as directed.

3.10.3.16.2. **Q-.** Recognized, located, tracked, and reported EA emitters, or employed EP procedures with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.16.3. **U.** Recognized, located, tracked, and reported EA emitters, or employed EP procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.17. Area 17--Air Refueling Procedures:**

3.10.3.17.1. **Q.** Accomplished air refueling procedures IAW applicable directives.

3.10.3.17.2. **Q-.** Accomplished air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

3.10.3.17.3. **U.** Accomplished air refueling procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.10.3.18. Area 18--Transferring Station Responsibility:**

3.10.3.18.1. **Q.** Established communications with relieving unit, verified link status, and ensured effective transfer of link responsibility to relieving aircraft was accomplished when directed. Debriefed voice/data net participants as required.

3.10.3.18.2. **Q-.** Performed transferring station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.10.3.18.3. **U.** Failed to debrief voice/data net participants, as required. Transferred station responsibilities with errors, omissions or delays that could have jeopardized mission accomplishment.

**3.10.3.19. Area 19--Inbound Procedures:**

3.10.3.19.1. **Q.** Performed inbound procedures IAW applicable directives.

3.10.3.19.2. **Q-.** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.10.3.19.3. **U.** Performed inbound procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.10.3.20. Area 20--Descent/Before Leaving Aircraft:**

3.10.3.20.1. **Q.** Completed descent/before leaving aircraft procedures IAW applicable directives. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.

3.10.3.20.2. **Q-.** Minor deviations observed when accomplishing descent/before leaving aircraft procedures. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.

3.10.3.20.3. **U.** Failed to accomplish descent/before leaving aircraft procedures IAW applicable directives. Failed to complete logs, forms and reports as required. Failed to enter all discrepancies in AFTO Forms 781.

**3.10.3.21. Area 21--Emergency Procedures and Equipment:**



3.10.3.21.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

3.10.3.21.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.10.3.21.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation or could have jeopardized mission accomplishment.

**3.10.3.22. Area 22--Safety (CRITICAL):**

3.10.3.22.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.10.3.22.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.10.3.23. Area 23--Mission Execution (CRITICAL):**

3.10.3.23.1. **Q.** Executed the assigned mission IAW applicable directives. Conducted the mission with a sense of understanding and comprehension.

3.10.3.23.2. **Q-.** Decisions degraded or prevented accomplishment of a portion of the surveillance mission. Resources were not always effectively used to the point that specific mission objectives were not achieved. Errors, omissions or delays did not jeopardize mission accomplishment.

3.10.3.23.3. **U.** Decisions or lack thereof, resulted in failure to accomplish the assigned surveillance mission. Errors, omissions or delays could have jeopardized mission accomplishment. Demonstrated poor judgment to the extent that overall missions objectives were not achieved. Regulations/directives were intentionally violated.

**3.10.3.24. Area 24--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.10.3.24.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.10.3.24.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.10.3.24.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.10.3.25. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph [2.4.](#) of this instruction.

3.10.3.25.1. **Area 25--Instructional Ability.**

3.10.3.25.2. **Area 26--Briefings/Critique.**

3.10.3.25.3. **Area 27**--Demonstration and Performance.**Table 3.11. Senior Surveillance Technician Evaluation Matrix.**

Evaluation Areas	Qual	Instr	Mission Profiles		
			Tactical	Air Sovereignty	CD
1. Mission Planning	R		R	R	R
2. Briefings/Debriefings	R		R	R	R
3. Prepermission Requirements	R				
4. Preflight Inspections	R				
5. Before Start	R				
6. Outbound Procedures	R		R	R	R
7. Assuming Station Procedures	R		R	R	R
8. Console Operations and Displays	R		R	R	R
9. Communications/Coordination	R		R	R	R
10. Sensors	R		R	R	R
11. AWACS Monitor (CRITICAL)	R		R	R	R
12. Tracking (CRITICAL)	R		R	R	R
13. Identification	R		R	R	R
14. Tell Functions	R		R	R	R
15. OPSEC/COMSEC/ Authentication Procedures	R		R	R	R
16. EA/EP Procedures	R		R	R	R
17. Air Refueling Procedures	R				
18. Transferring Station Responsibilities	R				
19. Inbound	R				
20. Descent/Before Leaving Aircraft	R				
21. Emergency Procedures and Equipment	R				
22. Safety (CRITICAL)	R		R	R	R
23. Mission Execution (CRITICAL)			R	R	R
24. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R	R	R
25. Instructional Ability		R			
26. Briefings/Critique		R			
27. Demonstration and Performance		R			
<b>R</b> = Required evaluation area.					

**3.11. Air Surveillance Technician Qualification and Mission Flight Evaluations:**

3.11.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of an Air Surveillance Technician (AST) and Instructor Air Surveillance Technician (IAST).

3.11.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.11.1.2. Mission evaluations will encompass all areas identified in the evaluation matrix for the mission profile performed. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight.

3.11.1.3. AST qualification evaluations will be conducted on a live E-3 sortie while the examinee actively participates in a surveillance team conducting surveillance activities. AST mission evaluations may be accomplished in the simulator only if no live E-3 mission profile sorties are available.

3.11.2. **Evaluation Objectives:**

3.11.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

3.11.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.11.3. **Criteria.** All areas in this section will be graded using the grading criteria in AFI 11-202V2, and any criteria listed within the individual areas.

3.11.3.1. **Area 1--Mission Planning:**

3.11.3.1.1. **Q.** Performed and assisted the ASO/SST in accomplishing mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Read and initialed for all items in the FCIF and read files.

3.11.3.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.1.3. **U.** Performed mission planning with errors or omissions that could have jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

3.11.3.2. **Area 2--Briefings/Debriefings:**

3.11.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.11.3.2.2. **Q-.** Attended all required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omission that did not jeopardize mission accomplishment.

3.11.3.2.3. **U.** Failed to attend required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.3. Area 3--Premission Requirements:**

3.11.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.11.3.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.4. Area 4--Preflight Inspections:**

3.11.3.4.1. **Q.** Performed preflight inspections IAW applicable directives.

3.11.3.4.2. **Q-.** Performed preflight inspections with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.4.3. **U.** Performed preflight inspections with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.5. Area 5--Before Start:**

3.11.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

3.11.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.5.3. **U.** Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.6. Area 6--Outbound Procedures:**

3.11.3.6.1. **Q.** Performed set up, checkout, and reported status for console, communications, and other operator tasked equipment to ensure operation was IAW applicable directives.

3.11.3.6.2. **Q-.** Performed equipment set up, checkout, or status reporting with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.6.3. **U.** Performed equipment set up, checkout, or status reporting with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.7. Area 7--Assuming Station Procedures:**

3.11.3.7.1. **Q.** Performed tasks IAW applicable directives to achieve station assumption.

3.11.3.7.2. **Q-.** Performed station assumption tasks with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.7.3. **U.** Performed station assumption tasks with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.8. Area 8--Console Operations and Displays:**

3.11.3.8.1. **Q.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives. Console operations and displays optimized situational awareness.

3.11.3.8.2. **Q-.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that did not jeopardize mission accomplishment.

3.11.3.8.3. **U.** Interpreted, initiated, updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that could have jeopardized mission accomplishment. Omissions or errors in console operations and displays contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.11.3.9. Area 9--Communication/Coordination:**

3.11.3.9.1. **Q.** Monitored and/or used assigned radios/mission nets IAW mission tasking and as directed. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations, utilizing proper R/T procedures without misunderstanding, confusion, or delay.

3.11.3.9.2. **Q-.** Monitored and/or used assigned radios/mission nets IAW mission tasking and as directed. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations, with errors or omissions utilizing improper R/T procedures that did not impact mission accomplishment.

3.11.3.9.3. **U.** Failed to monitor and/or use assigned radios/mission nets. Coordinated and/or reported requirements, mission changes, equipment discrepancies or limitations, with errors or omissions, utilizing improper R/T procedures that reduces mission effectiveness or could have jeopardized mission accomplishment.

**3.11.3.10. Area 10--AWACS Monitor (CRITICAL):**

3.11.3.10.1. **Q.** Performed AWACS Monitor procedures IAW applicable directives.

3.11.3.10.2. **Q-.** Performed AWACS Monitor procedures with minor errors, omissions or delays that did not jeopardize E-3 safety.

3.11.3.10.3. **U.** Failed to perform AWACS Monitor procedures IAW applicable directives, or performed with errors, omissions or delays that could have jeopardized E-3 safety.

**3.11.3.11. Area 11--Tracking (CRITICAL):**

3.11.3.11.1. **Q.** Recognized, initiated, maintained continuity, and resolved any track attention conditions on a minimum of 20 tracks within assigned area of responsibility IAW mission tasking and as directed.

3.11.3.11.2. **Q-.** Recognized, initiated, maintained continuity, or resolved any track attention conditions with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.11.3. **U.** Recognized, initiated, maintained continuity, or resolved any track attention conditions with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.12. Area 12--Identification:**

3.11.3.12.1. **Q.** Conducted identification function IAW mission tasking and as directed.

3.11.3.12.2. **Q-.** Conducted identification function with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.12.3. **U.** Conducted identification function with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.13. Area 13--Tell Functions:**

3.11.3.13.1. **Q.** Conducted required tell functions (voice/data link) IAW mission tasking and as directed.

3.11.3.13.2. **Q-.** Conducted required tell functions (voice/data link) with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.13.3. **U.** Conducted required tell functions (voice/data link) with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.14. Area 14--OPSEC/COMSEC and Authentication Procedures:**

3.11.3.14.1. **Q.** Properly protected plans and the operation through adequate security measures when coordinating and/or using communications equipment IAW OPSEC/COMSEC directives. Familiar with encode/decode documents and procedures. Able to properly authenticate within the time limit specified on the authenticator.

3.11.3.14.2. **Q-.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that did not jeopardize mission accomplishment or result in a security deviation/compromise.

3.11.3.14.3. **U.** Conducted OPSEC/COMSEC/Authentication procedures with errors, omissions or delays that could have jeopardized mission accomplishment or could have resulted in a security deviation/compromise. Unable to properly authenticate within the specified time limit.

**3.11.3.15. Area 15--EA/EP Procedures:**

3.11.3.15.1. **Q.** Recognized, located, tracked, and reports EA emitters, and employed EP procedures IAW mission tasking and as directed.

3.11.3.15.2. **Q-.** Recognized, located, tracked, and reported EA emitters, or employed EP procedures with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.15.3. **U.** Recognized, located, tracked, and reported EA emitters, or employed EP procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.16. Area 16--Air Refueling Procedures:**

3.11.3.16.1. **Q.** Accomplished air refueling procedures IAW applicable directives.

3.11.3.16.2. **Q-.** Accomplished air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

3.11.3.16.3. **U.** Accomplished air refueling procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.11.3.17. Area 17--Transferring Station Responsibilities:**

3.11.3.17.1. **Q.** Performed transferring station responsibility IAW mission tasking and as directed.

3.11.3.17.2. **Q-.** Performed transferring station responsibility with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.11.3.17.3. **U.** Performed transferring station responsibility with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.11.3.18. Area 18--Inbound Procedures:**

3.11.3.18.1. **Q.** Performed inbound procedures IAW applicable directives.

3.11.3.18.2. **Q-.** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.11.3.18.3. **U.** Performed inbound procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.11.3.19. Area 19--Descent/Before Leaving Aircraft:**

3.11.3.19.1. **Q.** Completed descent/before leaving aircraft procedures IAW applicable directives. Completed logs, forms and reports as required. Entered all discrepancies in AFTO Forms 781, as required.

3.11.3.19.2. **Q-.** Minor deviations observed when accomplishing descent/before leaving aircraft procedures. Discrepancies entered in AFTO Forms 781 contained minor errors/omissions or caused confusion.

3.11.3.19.3. **U.** Failed to accomplish descent/before leaving aircraft procedures IAW applicable directives. Failed to complete logs, forms and reports as required. Failed to enter all discrepancies in AFTO Forms 781.

**3.11.3.20. Area 20--Emergency Procedures and Equipment:**

3.11.3.20.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

3.11.3.20.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.11.3.20.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation or could have jeopardized mission accomplishment.

**3.11.3.21. Area 21--Safety (CRITICAL):**

3.11.3.21.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.11.3.21.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.11.3.22. Area 22--Mission Execution:**

3.11.3.22.1. **Q.** Executed the assigned mission IAW mission tasking and as directed. Conducted the mission with a sense of understanding and comprehension.

3.11.3.22.2. **Q-.** Decisions degraded or prevented accomplishment of a portion of the surveillance mission. Resources were not always effectively used to the point that specific mission objectives were not achieved. Errors, omissions or delays did not jeopardize mission accomplishment.

3.11.3.22.3. **U.** Decisions or lack thereof, resulted in failure to accomplish the assigned surveillance mission. Errors, omissions or delays could have jeopardized mission accomplishment. Demonstrated poor judgment to the extent that overall missions objectives were not achieved. Regulations/directives were intentionally violated.

**3.11.3.23. Area 23--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.11.3.23.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.11.3.23.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.11.3.23.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.11.3.24. The following areas are applicable to initial/recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

3.11.3.24.1. **Area 24--Instructional Ability.**

3.11.3.24.2. **Area 25--Briefings/Critique.**

3.11.3.24.3. **Area 26--Demonstration and Performance.**

**Table 3.12. Air Surveillance Technician Evaluation Matrix.**

Evaluation Areas	Qual	Instr	Mission Profiles		
			Track	ID	Tell
1. Mission Planning	R		R	R	R
2. Briefings/Debriefings	R		R	R	R
3. Permission Requirements	R				
4. Preflight Inspections	R				
5. Before Start	R				
6. Outbound Procedures	R		R	R	R
7. Assuming Station Procedures	R		R	R	R
8. Console Operations and Displays	R		R	R	R



Evaluation Areas	Qual	Instr	Mission Profiles		
			Track	ID	Tell
9. Communication/Coordination	R		R	R	R
10. AWACS Monitor (CRITICAL)	R		R	R	R
11. Tracking (CRITICAL)	R		R	R	R
12. Identification	R			R	
13. Tell Functions	R				R
14. OPSEC/COMSEC/ Authentication	R		R	R	R
15. EA/EP Procedures	R		R	R	R
16. Air Refueling	R				
17. Transferring Station Responsibilities	R		R	R	R
18. Inbound Procedures	R				
19. Descent/Before Leaving Aircraft	R				
20. Emergency Procedures and Equipment	R				
21. Safety (CRITICAL)	R		R	R	R
22. Mission Execution			R	R	R
23. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R	R	R
24. Instructional Ability		R			
25. Briefings/Critique		R			
26. Demonstration and Performance		R			
<b>R</b> = Required evaluation area.					

### 3.12. Airborne Communications Specialist Qualification And Mission Flight Evaluations:

3.12.1. **General.** This chapter contains the task oriented criteria for mission/qualification evaluations of an Airborne Communications Specialist (ACS) performing the Communications Systems Operator (CSO), Instructor Communications Systems Operator (ICSO), Communications Technician (CT), and Instructor Communications Technician (ICT) positions.

3.12.1.1. Mission/Qualification evaluations will encompass all areas identified in the evaluation matrix for the position performed. The examinee must demonstrate a degree of knowledge and proficiency as described in the positional task listing essential for successful mission accomplishment and safety of flight. Examinee must demonstrate the ability to operate, manage and maintain all equipment associated with the position performed. Evaluations will be performed upon the completion of initial qualification training, career enhancement training (CET), instructor upgrade training and recurring evaluations. Crewmembers completing CET will receive an evaluation in the CSO position and an evaluation in the CT position making them dual qualified. Dual qualified crewmembers will receive recurring evaluations in both the CSO and CT position. Aircraft configuration may dictate that additional systems be evaluated if the examinee has been trained and certified in those systems.

### 3.12.2. Evaluation Objectives:

3.12.2.1. **Mission/Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, FLIP and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix in the CSO or CT position. If a dual qualified examinee performs a task of the opposite position, the examinee must demonstrate the ability to safely and effectively accomplish that task.

3.12.3. **Ground Phase Requisites.** Open and closed book test requirements will be based on the qualification level of the examinee. Crewmembers qualified in the CSO or CT position will only test in that crew position. Dual qualified crewmembers and those completing CET will test on both the CSO and CT positions.

3.12.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

#### 3.12.4.1. Area 1--Mission Planning:

3.12.4.1.1. **Q.** Performed mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives. Read and initialed for all items in the FCIF and read files.

3.12.4.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.1.3. **U.** Performed mission planning with errors or omissions that could have jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

#### 3.12.4.2. Area 2--Briefings/Debriefings:

3.12.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Conducted briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.12.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

3.12.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or conducted briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment or maintenance analysis.

#### 3.12.4.3. Area 3--Prepermission Requirements:

3.12.4.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.12.4.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omission that did not jeopardize mission accomplishment.

3.12.4.3.3. **U.** Failed to possess all personal/professional equipment or to maintain it in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.4. Area 4--Preflight Inspection:**

3.12.4.4.1. **Q.** Performed preflight inspection IAW applicable directives.

3.12.4.4.2. **Q-.** Performed preflight inspection with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.4.3. **U.** Performed preflight inspection with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.5. Area 5--Before Start/Taxi:**

3.12.4.5.1. **Q.** Performed before start/taxi procedures IAW applicable directives.

3.12.4.5.2. **Q-.** Performed before start/taxi procedures with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.5.3. **U.** Performed before start/taxi procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.6. Area 6--Internal/External Coordination:**

3.12.4.6.1. **Q.** Coordinated and/or reported requirements, mission changes, equipment discrepancies, and limitations IAW applicable directives without misunderstanding, confusion, or delay.

3.12.4.6.2. **Q-.** Coordinated and/or reported with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

3.12.4.6.3. **U.** Coordinated and/or reported with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.12.4.7. Area 7--Outbound Procedures:**

3.12.4.7.1. **Q.** Performed outbound procedures IAW applicable directives.

3.12.4.7.2. **Q-.** Performed outbound procedures with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.7.3. **U.** Performed outbound procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.8. Area 8--Data Link Operations:**

3.12.4.8.1. **Q.** Configured, operated, and terminated data links IAW applicable directives.

3.12.4.8.2. **Q-.** Configured, operated, or terminated data links with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.8.3. **U.** Failed to configure, operate, or terminate data links. Performed data link operations with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.9. Area 9--Conducting Mission Operations:**

3.12.4.9.1. **Q.** Monitored radios and mission nets and performed required changes (e.g. radio/frequency/baseband distribution panel (BDP)). Performed update switch actions for HAVE QUICK A Net (HQAN), Joint Tactical Information Distribution system (JTIDS), and communications related software IAW applicable directives.

3.12.4.9.2. **Q-.** Monitored radios or mission nets or performed required changes with errors or omissions that did not jeopardize mission accomplishment. Performed update switch actions for HQAN, JTIDS, and communications related software with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.9.3. **U.** Failed to monitor radios or mission nets or performed required changes, or monitored with errors or omissions that could have jeopardized mission accomplishment. Failed to perform update switch actions for HQAN, JTIDS, and communications related software, or performed with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.10. Area 10--Malfunction Analysis/Inflight Maintenance:**

3.12.4.10.1. **Q.** Recognized and analyzed malfunction indications in the Communications Functional Group (CFG) and performed inflight maintenance IAW applicable directives.

3.12.4.10.2. **Q-.** Recognized and analyzed malfunction indications in the CFG and performed inflight maintenance with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.10.3. **U.** Failed to recognize or analyze malfunction indications in the CFG. Performed inflight maintenance with errors or omission that could have jeopardized mission accomplishment.

**3.12.4.11. Area 11--Air Refueling Procedures:**

3.12.4.11.1. **Q.** Performed air refueling procedures IAW applicable directives.

3.12.4.11.2. **Q-.** Performed air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.11.3. **U.** Performed air refueling procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.12. Area 12--Console Operations/Displays:**

3.12.4.12.1. **Q.** Interpreted and updated data for computer displays, accomplished switch actions, and responded to alarms and alerts IAW applicable directives.

3.12.4.12.2. **Q-.** Interpreted and updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that did not jeopardize mission accomplishment.

3.12.4.12.3. **U.** Interpreted and updated data for computer displays, accomplished switch actions, or responded to alarms and alerts with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.13. Area 13--Communications System Checkout/Control Power Supply (CPS) Diagnostic Maintenance Program (DMP) Preparation:**

3.12.4.13.1. **Q.** Performed communications system lamp test, built in test equipment (BITE) tests, and CPS DMP preparation IAW applicable directives.

3.12.4.13.2. **Q-.** Misinterpreted or responded to test results, or performed communications system lamp test, BITE tests, or CPS DMP preparation with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

3.12.4.13.3. **U.** Misinterpreted or responded to test results with errors or omissions that could have jeopardized mission accomplishment or maintenance analysis. Failed to correctly perform communications system lamp test, BITE tests, or CPS DMP preparation.

**3.12.4.14. Area 14--Documentation:**

3.12.4.14.1. **Q.** Completed and submitted logs, forms, and other documentation IAW applicable directives.

3.12.4.14.2. **Q-.** Completed and submitted logs, forms, or other documentation with errors, omissions, or delays that did not jeopardize mission accomplishment or analysis.

3.12.4.14.3. **U.** Failed to complete or completed and submitted logs, forms, or other documentation with errors, omissions, or delays that could have jeopardized mission accomplishment or analysis.

**3.12.4.15. Area 15--Emergency Procedures and Equipment:**

3.12.4.15.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

3.12.4.15.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.12.4.15.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.12.4.16. Area 16--Safety (CRITICAL):**

3.12.4.16.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.12.4.16.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.12.4.17. Area 17--Inbound Procedures:**

3.12.4.17.1. **Q.** Performed inbound procedures IAW applicable directives.

3.12.4.17.2. **Q-.** Performed inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.12.4.17.3. **U.** Performed inbound procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.12.4.18. Area 18--Descent/Engine Shutdown:**

- 3.12.4.18.1. **Q.** Performed descent/engine shutdown procedures IAW applicable directives.
- 3.12.4.18.2. **Q-.** Performed descent/engine shutdown with errors or omissions that did not jeopardize mission accomplishment.
- 3.12.4.18.3. **U.** Performed descent/engine shutdown with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.19. Area 19--Before Leaving Aircraft:**

- 3.12.4.19.1. **Q.** Performed before leaving airplane procedures IAW applicable directives.
- 3.12.4.19.2. **Q-.** Performed before leaving airplane procedures with errors or omissions that did not jeopardize mission accomplishment.
- 3.12.4.19.3. **U.** Performed before leaving airplane procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.20. Area 21--Classified/COMSEC Material:**

- 3.12.4.20.1. **Q.** Controlled and used classified/COMSEC material IAW applicable directives.
- 3.12.4.20.2. **Q-.** Controlled or used classified/COMSEC material with errors or omissions that did not jeopardize mission accomplishment or result in a security deviation/compromise.
- 3.12.4.20.3. **U.** Controlled or used classified/COMSEC material with errors or omissions that could have jeopardized mission accomplishment or could have resulted in a security deviation/compromise.

**3.12.4.21. Area 21--Radio/Telephone (R/T) Procedures:**

- 3.12.4.21.1. **Q.** Employed standard R/T procedures IAW applicable directives.
- 3.12.4.21.2. **Q-.** Employed standard R/T procedures with errors or omissions that did not jeopardize mission accomplishment.
- 3.12.4.21.3. **U.** Failed to employ standard R/T procedures. Used R/T procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.12.4.22. Area 22--Aircrew Discipline/Crew Coordination (CRITICAL):**

- 3.12.4.22.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.
- 3.12.4.22.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.
- 3.12.4.22.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.12.4.23. The following areas are applicable to initial/recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

- 3.12.4.23.1. **Area 23--Instructional Ability.**

3.12.4.23.2. **Area 24**--Briefings/Critique.

3.12.4.23.3. **Area 25**--Demonstration and Performance.

**Table 3.13. Airborne Communication Specialist Evaluation Matrix.**

Evaluation Areas	Instr	Mission/Qual Profile	
		CSO	CT
1. Mission Planning		R	R
2. Briefings/Debriefings		R	R
3. Prepermission Requirements		R	R
4. Preflight Inspections		R	R
5. Before Start/Taxi		R	R
6. Coordination		R	R
7. En route Procedures--Outbound		R	R
8. Data Link Operations		R	R
9. Conducting Mission Operations (See Note)		R	R
10. Malfunction Analysis/Inflight Maintenance			R
11. Air Refueling Procedures		R	R
12. Console Operations/Displays		R	
13. Communications System Checkout/CPS DMP Preparation		R	R
14. Documentation		R	R
15. Emergency Procedures and Equipment		R	R
16. Safety (CRITICAL)		R	R
17. En route Procedures--Inbound		R	R
18. Descent/Engine Shutdown		R	R
19. Before Leaving Aircraft			R
20. Classified/COMSEC Material		R	R
21. Radio/Telephone (R/T) Procedures		R	R
22. Aircrew Discipline/Crew Coordination (CRITICAL)		R	R
23. Instructional Ability	R		
24. Briefings/Critique	R		
25. Demonstration and Performance	R		
<b>R</b> = Required evaluation area.			
<b>NOTE:</b> For CSOs, the JTIDS Operational Switch actions portion of Area 9 will not be evaluated.			

### 3.13. Computer Display Maintenance Technician Qualification and Mission Flight Evaluations:

3.13.1. **General.** This chapter contains the task oriented criteria for mission/qualification evaluations of the Airborne Computer Display Maintenance Technician (CDMT) and Instructor Airborne Computer Display Maintenance Technician (ICDMT).

3.13.1.1. Mission/Qualification evaluations will include all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. These evaluations will be conducted on a recurring basis as directed in AFI 11-202V2. Examinee must demonstrate satisfactory ability to operate and maintain the Data Processing, Data Display, Electronic Support System, Electronic Support Measures System, and On-Board Test Monitor and Maintenance System. This includes the loading and operation of airborne operational computer program (AOCP), data processing system (DPS) DMP, CPS DMP, performing the drum initialized override data tape (DIODT) function, and at least one utility program. One in-flight maintenance procedure must be performed or simulated.

3.13.2. **Evaluation Objectives:**

3.13.2.1. **Mission/Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment.

3.13.3. **Ground Phase Requisites.** The examinee must satisfy open and closed book test requirements within their eligibility period to complete recurring evaluations or within six months of initial evaluations.

3.13.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

3.13.4.1. **Area 1--Mission Planning:**

3.13.4.1.1. **Q.** Performed mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives.

3.13.4.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.1.3. **U.** Performed mission planning with errors or omissions that could have jeopardized mission accomplishment.

3.13.4.2. **Area 2--Briefings/Debriefings:**

3.13.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.13.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

3.13.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment or maintenance analysis.

3.13.4.3. **Area 3--Prepermission Requirements:**



3.13.4.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.13.4.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.3.3. **U.** Failed to possess all personal/professional equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.4. Area 4--Preflight Inspection:**

3.13.4.4.1. **Q.** Performed preflight inspection IAW applicable directives.

3.13.4.4.2. **Q-.** Performed preflight inspection with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.4.3. **U.** Performed preflight inspection with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.5. Area 5--Before Start:**

3.13.4.5.1. **Q.** Performed before start procedures IAW applicable directives.

3.13.4.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.5.3. **U.** Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.6. Area 6--Internal/External Coordination:**

3.13.4.6.1. **Q.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations IAW applicable directives.

3.13.4.6.2. **Q-.** Coordinated/reported with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

3.13.4.6.3. **U.** Coordinated/reported with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.13.4.7. Area 7--Equipment Power Turn-On:**

3.13.4.7.1. **Q.** Performed equipment power turn-on procedures IAW applicable directives.

3.13.4.7.2. **Q-.** Performed equipment power turn-on procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.13.4.7.3. **U.** Failed to perform equipment power turn-on. Performed procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.13.4.8. Area 8--AOCP Program Load:**

3.13.4.8.1. **Q.** Performed AOCP program load procedures IAW applicable directives.

3.13.4.8.2. **Q-.** Performed AOCP program load procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.13.4.8.3. **U.** Failed to perform AOC program load. Performed procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.13.4.9. Area 9--Equipment Operations and Displays:**

3.13.4.9.1. **Q.** Initiated and interpreted software data for mission equipment operation IAW applicable directives.

3.13.4.9.2. **Q-.** Initiated and interpreted software data for mission equipment operation with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.9.3. **U.** Initiated and interpreted software data for mission equipment operation with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.10. Area 10--Peripheral Device Operation:**

3.13.4.10.1. **Q.** Maintained and operated hard disk systems (HDSs) and line printer IAW applicable directives.

3.13.4.10.2. **Q-.** Maintained or operated HDSs or line printer with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.10.3. **U.** Failed to maintain line printer operation or operated the HDSs with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.11. Area 11--On-Line Testing:**

3.13.4.11.1. **Q.** Initiated, reinitiated, configured, and terminated on-line testing IAW applicable directives.

3.13.4.11.2. **Q-.** Initiated, reinitiated, configured, or terminated on-line testing with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.11.3. **U.** Initiated, reinitiated, or configured on-line testing with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.12. Area 12--Malfunction Analysis/Inflight Maintenance:**

3.13.4.12.1. **Q.** Recognized and analyzed malfunctions and performed inflight maintenance IAW applicable directives.

3.13.4.12.2. **Q-.** Recognized/analyzed malfunctions or performed inflight maintenance with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.12.3. **U.** Failed to recognize/analyze malfunctions or performed inflight maintenance with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.13. Area 13--Air Refueling Procedures:**

3.13.4.13.1. **Q.** Performed air refueling procedures IAW applicable directives.

3.13.4.13.2. **Q-.** Performed air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.13.3. **U.** Performed air refueling procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.14. Area 14--Utility Programs:**

3.13.4.14.1. **Q.** Loaded and executed utility stand-alone program (USP) and utility programs. Interpreted and responded to prompts and error codes IAW applicable directives.

3.13.4.14.2. **Q-.** Loaded and executed USP and utility programs, and interpreted and responded to prompts/error codes with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.13.4.14.3. **U.** Failed to correctly load or execute USP or utility programs. Misinterpreted or failed to respond to prompts/error codes that could have jeopardized mission accomplishment.

**3.13.4.15. Area 15--Data Processing System Checkout:**

3.13.4.15.1. **Q.** Loaded and executed diagnostic programs, interpreted and responded to indicators and codes IAW applicable directives.

3.13.4.15.2. **Q-.** Loaded or executed diagnostic programs, interpreted and responded to indicators and codes with errors, omissions, or delays that did not jeopardize maintenance analysis or mission accomplishment.

3.13.4.15.3. **U.** Failed to correctly load or execute diagnostic programs or failed to respond to indicators or codes. Misinterpreted or responded to indicators or codes with errors, omissions, or delays that could have jeopardized maintenance analysis or mission accomplishment.

**3.13.4.16. Area 16--General Use Procedures:**

3.13.4.16.1. **Q.** Performed general use procedures IAW applicable directives.

3.13.4.16.2. **Q-.** Performed general use procedures with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.16.3. **U.** Performed general use procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.17. Area 17--Power Removal/Descent/Before Leaving Aircraft:**

3.13.4.17.1. **Q.** Performed power removal/descent/before leaving aircraft procedures IAW applicable directives.

3.13.4.17.2. **Q-.** Performed power removal/descent/before leaving aircraft procedures with errors or omissions that did not jeopardize mission accomplishment.

3.13.4.17.3. **U.** Performed power removal/descent/before leaving aircraft procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.13.4.18. Area 18--Emergency Procedures and Equipment:**

3.13.4.18.1. **Q.** Performs emergency procedures and uses emergency equipment IAW applicable directives.

3.13.4.18.2. **Q-.** Committed errors, omissions or delays in the performance of emergency procedures or emergency equipment use that did not result in an unsafe situation or jeopardize mission accomplishment.

3.13.4.18.3. **U.** Performs emergency procedures or uses emergency equipment with errors, omissions or delays that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.13.4.19. Area 19--Safety (Critical):**

3.13.4.19.1. **Q.** Employed all available methods to ensure safety of flight during all phases of the mission.

3.13.4.19.2. **U.** Failed to ensure safety of flight during all phases of the mission.

**3.13.4.20. Area 20--Documentation:**

3.13.4.20.1. **Q.** Completed and submitted logs, forms, and other documentation IAW applicable directives.

3.13.4.20.2. **Q-.** Completed and submitted logs, forms, or other documentation with errors, omissions, or delays that did not jeopardize mission accomplishment or analysis.

3.13.4.20.3. **U.** Failed to complete or completed and submitted logs, forms, or other documentation with errors, omissions, or delays that could have jeopardized mission accomplishment or analysis.

**3.13.4.21. Area 21--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.13.4.21.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.13.4.21.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.13.4.21.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.13.4.22. The following areas are applicable to initial and recurring instructor evaluations. Specific criteria are included in paragraph 2.4. of this instruction.

3.13.4.22.1. **Area 22--Instructional Ability.**

3.13.4.22.2. **Area 23--Briefings/Critique.**

3.13.4.22.3. **Area 24--Demonstration and Performance.**

**Table 3.14. Computer Display Maintenance Technician Evaluation Matrix.**

Evaluation Areas	Mission/Qual Profiles	
	CDMT	ICDMT
1. Mission Planning	R	
2. Briefings/Debriefings	R	
3. Prepermission Requirements	R	
4. Preflight Inspection	R	
5. Before Start/Taxi	R	
6. Internal/External Coordination	R	
7. Equipment Power Turn-On	R	
8. AOCP Program Load	R	
9. Equipment Operations and Displays	R	

Evaluation Areas	Mission/Qual Profiles	
	CDMT	ICDMT
10. Peripheral Device Operation	R	
11. On-Line Testing	R	
12. Malfunction Analysis/Inflight Maintenance	R	
13. Air Refueling Procedures	R	
14. Utility Programs	R	
15. Post Mission System Checkout	R	
16. General Use Procedures	R	
17. Power Removal/Descent/Before Leaving Aircraft	R	
18. Emergency Procedures and Equipment	R	
19. Safety (CRITICAL)	R	
20. Documentation	R	
21. Aircrew Discipline/Crew Coordination (CRITICAL)	R	
22. Instructional Ability		R
23. Briefing and Critique		R
24. Demonstration and Performance		R
R = Required evaluation areas.		

### 3.14. Computer Display Maintenance Operator Qualification and Mission Flight Evaluations:

3.14.1. **General.** This chapter contains the task oriented criteria for mission/qualification evaluations of the Airborne Computer Display Maintenance Operator (CDMO).

3.14.1.1. Mission/Qualification evaluations will include all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. These evaluations will be conducted as directed in AFI 11-202V2. Examinee must demonstrate satisfactory ability to operate and recognize malfunctions in the Data Processing, Data Display, Electronic Support System, and On-Board Test Monitor and Maintenance System. This includes the loading and operation of AOCP, DPS DMP, CPS DMP, performing the DIODT function, and at least one utility program.

#### 3.14.2. Evaluation Objectives:

3.14.2.1. **Mission/Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment.

3.14.3. **Ground Phase Requisites.** Examinees must complete open and closed book test requirements prior to receiving a flight evaluation.

3.14.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

#### 3.14.4.1. Area 1--Mission Planning:

3.14.4.1.1. **Q.** Performed mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives.

3.14.4.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.1.3. **U.** Performed mission planning with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.2. Area 2--Briefings/Debriefings:**

3.14.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.14.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

3.14.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment or maintenance analysis.

**3.14.4.3. Area 3--Prepermission Requirements:**

3.14.4.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.14.4.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.3.3. **U.** Failed to possess all personal/professional equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.4. Area 4--Preflight Inspection:**

3.14.4.4.1. **Q.** Performed preflight inspection IAW applicable directives.

3.14.4.4.2. **Q-.** Performed preflight inspection with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.4.3. **U.** Performed preflight inspection with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.5. Area 5--Before Start:**

3.14.4.5.1. **Q.** Performed before start procedures IAW applicable directives.

3.14.4.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.5.3. **U.** Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.6. Area 6--Internal/External Coordination:**

3.14.4.6.1. **Q.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations IAW applicable directives without misunderstanding, confusion, or delay.

3.14.4.6.2. **Q-.** Coordinated/reported with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

3.14.4.6.3. **U.** Coordinated/reported with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.14.4.7. Area 7--Equipment Power Turn-On:**

3.14.4.7.1. **Q.** Performed equipment power turn-on procedures IAW applicable directives.

3.14.4.7.2. **Q-.** Performed equipment power turn-on procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.14.4.7.3. **U.** Failed to perform equipment power turn-on. Performed procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.14.4.8. Area 8--AOCP Program Load:**

3.14.4.8.1. **Q.** Performed AOCP program load procedures IAW applicable directives.

3.14.4.8.2. **Q-.** Performed AOCP program load procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.14.4.8.3. **U.** Failed to perform AOCP program load. Performed procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.14.4.9. Area 9--Equipment Operations and Displays:**

3.14.4.9.1. **Q.** Initiated and interpreted software data for mission equipment operation IAW applicable directives.

3.14.4.9.2. **Q-.** Initiated and interpreted software data for mission equipment operation with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.9.3. **U.** Initiated and interpreted software data for mission equipment operation with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.10. Area 10--Peripheral Device Operation:**

3.14.4.10.1. **Q.** Maintained and operated HDSs and line printer IAW applicable directives.

3.14.4.10.2. **Q-.** Maintained or operated HDSs or line printer with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.10.3. **U.** Failed to maintain line printer operation or operated the HDSs with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.11. Area 11--On-Line Testing:**

3.14.4.11.1. **Q.** Initiated, reinitiated, configured, and terminated on-line testing IAW applicable directives.

3.14.4.11.2. **Q-.** Initiated, reinitiated, configured, or terminated on-line testing with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.11.3. **U.** Initiated, reinitiated, or configured on-line testing with errors or omissions that could have jeopardized mission accomplishment

**3.14.4.12. Area 12--Malfunction Identification:**

3.14.4.12.1. **Q.** Recognized malfunction indications and reported them to the CDMT IAW applicable directives.

3.14.4.12.2. **Q-.** Recognized malfunction indications or reported them to the CDMT with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.14.4.12.3. **U.** Failed to recognize malfunction indications. Reports malfunctions to the CDMT with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.14.4.13. Area 13--Air Refueling Procedures:**

3.14.4.13.1. **Q.** Performed air refueling procedures IAW applicable directives.

3.14.4.13.2. **Q-.** Performed air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.13.3. **U.** Performed air refueling procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.14. Area 14--Utility Programs:**

3.14.4.14.1. **Q.** Loaded and executed USP and utility programs. Interpreted and responded to prompts and error codes IAW applicable directives.

3.14.4.14.2. **Q-.** Loaded and executed USP and utility programs, and interpreted and responded to prompts/error codes with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.14.4.14.3. **U.** Failed to correctly load or execute USP or utility programs. Misinterpreted or failed to respond to prompts/error codes that could have jeopardized mission accomplishment.

**3.14.4.15. Area 15--Data Processing System Checkout:**

3.14.4.15.1. **Q.** Loaded and executed diagnostic programs, recognized error indications, and reported them to the CDMT IAW applicable directives.

3.14.4.15.2. **Q-.** Loaded and executed diagnostic programs, recognized error indications, or reported them to the CDMT with errors, omissions, or delays that did not jeopardize maintenance analysis or mission accomplishment.

3.14.4.15.3. **U.** Failed to correctly load or execute diagnostic programs. Failed to recognize error indications or report them to the CDMT with errors, omissions, or delays that could have jeopardized maintenance analysis or mission accomplishment.

**3.14.4.16. Area 16--General Use Procedures:**

3.14.4.16.1. **Q.** Performed general use procedures IAW applicable directives.

3.14.4.16.2. **Q-.** Performed general use procedures with errors or omissions that did not jeopardize mission accomplishment.



3.14.4.16.3. **U.** Performed general use procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.17. Area 17--Power Removal/Descent/Before Leaving Aircraft:**

3.14.4.17.1. **Q.** Performed power removal/descent/before leaving aircraft procedures IAW applicable directives.

3.14.4.17.2. **Q-.** Performed power removal/descent/before leaving aircraft procedures with errors or omissions that did not jeopardize mission accomplishment.

3.14.4.17.3. **U.** Performed power removal/descent/before leaving aircraft procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.14.4.18. Area 18--Emergency Procedures and Equipment:**

3.14.4.18.1. **Q.** Performs emergency procedures and uses emergency equipment IAW applicable directives.

3.14.4.18.2. **Q-.** Committed errors, omissions or delays in the performance of emergency procedures or emergency equipment use that did not result in an unsafe situation or jeopardize mission accomplishment.

3.14.4.18.3. **U.** Performs emergency procedures or uses emergency equipment with errors, omissions or delays that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.14.4.19. Area 19--Safety (CRITICAL):**

3.14.4.19.1. **Q.** Employed all available methods to ensure safety during all phases of the mission.

3.14.4.19.2. **U.** Failed to ensure safety during all phases of the mission.

**3.14.4.20. Area 20--Documentation:**

3.14.4.20.1. **Q.** Completed and submitted logs, forms, and other documentation IAW applicable directives.

3.14.4.20.2. **Q-.** Completed and submitted logs, forms, or other documentation with errors, omissions, or delays that did not jeopardize mission accomplishment or analysis.

3.14.4.20.3. **U.** Failed to complete or completed and submitted logs, forms, or other documentation with errors, omissions, or delays that could have jeopardized mission accomplishment or analysis.

**3.14.4.21. Area 21--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.14.4.21.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.14.4.21.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.14.4.21.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

**Table 3.15. Computer Display Maintenance Operator Evaluation Matrix.**

<b>Evaluation Areas</b>	<b>CDMO</b>
1. Mission Planning	R
2. Briefings/Debriefings	R
3. Prepermission Requirements	R
4. Preflight Inspection	R
5. Before Start/Taxi	R
6. Internal/External Coordination	R
7. Equipment Power Turn-On	R
8. AOCP Program Load	R
9. Equipment Operations and Displays	R
10. Peripheral Device Operation	R
11. On-Line Testing	R
12. Malfunction Identification	R
13. Air Refueling Procedures	R
14. Utility Programs	R
15. Post Mission System Checkout	R
16. General Use Procedures	R
17. Power Removal/Descent/Before Leaving Aircraft	R
18. Emergency Procedures and Equipment	R
19. Safety (CRITICAL)	R
20. Documentation	R
21. Aircrew Discipline/Crew Coordination (CRITICAL)	R
<b>R</b> = Required evaluation areas.	

### **3.15. Airborne Radar Technician Qualification and Mission Flight Evaluations:**

3.15.1. **General.** This chapter contains the task oriented criteria for mission/qualification evaluations of an Airborne Radar Technician (ART) and Instructor Airborne Radar Technician (IART).

3.15.1.1. Mission/Qualification evaluations will include all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. These evaluations will be performed on a recurring basis as directed by AFI 11-202V2. Examinee must demonstrate satisfactory ability to operate and maintain the radar and IFF systems. This includes the loading and operation of radar operational program (ROP), post station checkout using radar test, two manual test procedures (one using a transmitter sample), and one level of fault isolation test (FIT).

3.15.2. **Evaluation Objectives:**

3.15.2.1. **Mission/Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment.

3.15.3. **Ground Phase Requisites.** The examinee must satisfy open and closed book test requirements within their eligibility period to complete their recurring evaluation.

3.15.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

3.15.4.1. **Area 1--Mission Planning:**

3.15.4.1.1. **Q.** Performed mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives.

3.15.4.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.1.3. **U.** Performed mission planning with errors or omissions that could have jeopardized mission accomplishment.

3.15.4.2. **Area 2--Briefings/Debriefings:**

3.15.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.15.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

3.15.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment or maintenance analysis.

3.15.4.3. **Area 3--Prepermission Requirements:**

3.15.4.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.15.4.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.3.3. **U.** Failed to possess all personal/professional equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

3.15.4.4. **Area 4--Preflight Inspection:**

3.15.4.4.1. **Q.** Performed preflight inspection IAW applicable directives.

3.15.4.4.2. **Q-.** Performed preflight inspection with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.4.3. **U.** Performed preflight inspection with errors or omissions that could have jeopardized mission accomplishment.

**3.15.4.5. Area 5--Before Start/Taxi:**

3.15.4.5.1. **Q.** Performed before start/taxi procedures IAW applicable directives.

3.15.4.5.2. **Q-.** Performed before start/taxi procedures with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.5.3. **U.** Performed before start/taxi procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.15.4.6. Area 6--Internal/External Coordination:**

3.15.4.6.1. **Q.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations IAW applicable directives without misunderstanding, confusion, or delay.

3.15.4.6.2. **Q-.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

3.15.4.6.3. **U.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.15.4.7. Area 7--Outbound Procedures:**

3.15.4.7.1. **Q.** Performed outbound procedures IAW applicable directives.

3.15.4.7.2. **Q-.** Performed outbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.15.4.7.3. **U.** Performed outbound procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.15.4.8. Area 8--On Station Procedures:**

3.15.4.8.1. **Q.** Performed on station procedures IAW applicable directives.

3.15.4.8.2. **Q-.** Performed on station procedures with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.8.3. **U.** Performed on station procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.15.4.9. Area 9--Malfunction Analysis/Inflight Maintenance:**

3.15.4.9.1. **Q.** Recognized and analyzed malfunctions and performed in-flight maintenance IAW applicable directives.

3.15.4.9.2. **Q-.** Recognized/analyzed malfunctions or performed in-flight maintenance with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.9.3. **U.** Failed to recognize/analyze malfunctions or performed in-flight maintenance with errors or omissions that could have jeopardized mission accomplishment.

**3.15.4.10. Area 10--Inbound Procedures:**

3.15.4.10.1. **Q.** Performs inbound procedures IAW applicable directives.

3.15.4.10.2. **Q-.** Performs inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.15.4.10.3. **U.** Performs inbound procedures with errors, omissions, or delays which could have jeopardized mission accomplishment.

**3.15.4.11. Area 11--Descent/Engine Shutdown/Before Leaving Aircraft:**

3.15.4.11.1. **Q.** Performed descent/engine shutdown/before leaving aircraft procedures IAW applicable directives.

3.15.4.11.2. **Q-.** Performed descent/engine shutdown/before leaving aircraft procedures with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.11.3. **U.** Performed descent/engine shutdown/before leaving aircraft procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.15.4.12. Area 12- General Use Procedures:**

3.15.4.12.1. **Q.** Performed general use procedures IAW applicable directives.

3.15.4.12.2. **Q-.** Performed general use procedures with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.12.3. **U.** Performed general use procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.15.4.13. Area 13--Air Refueling Procedures:**

3.15.4.13.1. **Q.** Performed air refueling procedures IAW applicable directives.

3.15.4.13.2. **Q-.** Performed air refueling procedures with errors or omissions that did not jeopardize mission accomplishment.

3.15.4.13.3. **U.** Performed air refueling procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.15.4.14. Area 14--Emergency Procedures and Equipment:**

3.15.4.14.1. **Q.** Performed emergency procedures and used emergency equipment IAW applicable directives.

3.15.4.14.2. **Q-.** Performed emergency procedures or used emergency equipment with errors, omissions or delays that did not result in an unsafe situation or jeopardize mission accomplishment.

3.15.4.14.3. **U.** Performed emergency procedures or used emergency equipment with errors, omissions or delays that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.15.4.15. Area 15--Safety (Critical):**

3.15.4.15.1. **Q.** Employed all available methods to ensure safety of flight during all phases of the mission.

3.15.4.15.2. **U.** Failed to ensure safety of flight during all phases of the mission.

**3.15.4.16. Area 16--Documentation:**

3.15.4.16.1. **Q.** Completed and submitted logs, forms, and other documentation IAW applicable directives.

3.15.4.16.2. **Q-.** Completed and submitted logs, forms, or other documentation with errors, omissions, or delays that did not jeopardize mission accomplishment or analysis.

3.15.4.16.3. **U.** Failed to complete or completed and submitted logs, forms, or other documentation with errors, omissions, or delays that could have jeopardized mission accomplishment or analysis.

**3.15.4.17. Area 17--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.15.4.17.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.15.4.17.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.15.4.17.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.15.4.18. The following areas are applicable to initial and recurring instructor evaluations. Specific criteria are included in paragraph [2.4.](#) of this instruction.

3.15.4.18.1. **Area 18--Instructional Ability.**

3.15.4.18.2. **Area 19--Briefings/Critiques.**

3.15.4.18.3. **Area 20--Demonstration and Performance.**

**Table 3.16. Airborne Radar Technician Evaluation Matrix.**

Evaluation Areas	Mission/Qual Profiles	
	ART	IART
1. Mission Planning	R	
2. Briefings/Debriefings	R	
3. Prepermission Requirements	R	
4. Preflight Inspection	R	
5. Before Start/Taxi	R	
6. Internal/External Coordination	R	
7. Outbound Procedures	R	
8. On Station Procedures	R	
9. Malfunction Analysis/Inflight Maintenance	R	
10. Inbound Procedures	R	
11. Descent/Engine Shutdown/Before Leaving Aircraft	R	

Evaluation Areas	Mission/Qual Profiles	
	ART	IART
12. General Use Procedures	R	
13. Air Refueling Procedures	R	
14. Emergency Procedures and Equipment	R	
15. Safety (CRITICAL)	R	
16. Documentation	R	
17. Aircrew Discipline/Crew Coordination (CRITICAL)	R	
18. Instructional Ability		R
19. Briefing and Critique		R
20. Demonstration and Performance		R
R = Required evaluation area.		

### 3.16. Airborne Radar Operator Qualification and Mission Flight Evaluations:

3.16.1. **General.** This chapter contains the task oriented criteria for mission/qualification evaluations of an Airborne Radar Operator (ARO).

3.16.1.1. Mission/Qualification evaluations will include all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight. These evaluations will be performed as directed by AFI 11-202V2. Examinee must demonstrate satisfactory ability to operate the radar and IFF systems. This includes the loading and operation of ROP, post station checkout using radar test, and two manual test procedures (one using a transmitter sample).

#### 3.16.2. Evaluation Objectives:

3.16.2.1. **Mission/Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment.

3.16.3. **Ground Phase Requisites.** Examinees must complete open and closed book test requirements prior to receiving a flight evaluation.

3.16.4. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2 and any criteria listed within the individual areas.

#### 3.16.4.1. Area 1--Mission Planning:

3.16.4.1.1. **Q.** Performed mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable directives.

3.16.4.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.16.4.1.3. **U.** Performed mission planning with errors or omissions that could have jeopardized mission accomplishment.

#### 3.16.4.2. Area 2--Briefings/Debriefings:

3.16.4.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.16.4.2.2. **Q-.** Attended all required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that did not jeopardize mission accomplishment or maintenance analysis.

3.16.4.2.3. **U.** Failed to attend required briefings/debriefings. Extracted/provided information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment or maintenance analysis.

**3.16.4.3. Area 3--Premission Requirements:**

3.16.4.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.16.4.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.16.4.3.3. **U.** Failed to possess all personal/professional equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.16.4.4. Area 4--Preflight Inspection:**

3.16.4.4.1. **Q.** Performed preflight inspection IAW applicable directives.

3.16.4.4.2. **Q-.** Performed preflight inspection with errors or omissions that did not jeopardize mission accomplishment.

3.16.4.4.3. **U.** Performed preflight inspection with errors or omissions that could have jeopardized mission accomplishment.

**3.16.4.5. Area 5--Before Start/Taxi:**

3.16.4.5.1. **Q.** Performed before start/taxi procedures IAW applicable directives.

3.16.4.5.2. **Q-.** Performed before start/taxi procedures with errors or omissions that did not jeopardize mission accomplishment.

3.16.4.5.3. **U.** Performed before start/taxi procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.16.4.6. Area 6--Internal/External Coordination:**

3.16.4.6.1. **Q.** Coordinated/reported requirements, mission changes, equipment discrepancies, and limitations IAW applicable directives without misunderstanding, confusion, or delay.

3.16.4.6.2. **Q-.** Coordinated/reported with errors, omissions, misunderstanding, confusion, or delays that did not jeopardize mission accomplishment.

3.16.4.6.3. **U.** Coordinated/reported with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.16.4.7. Area 7--Outbound Procedures:**



3.16.4.7.1. **Q.** Performed outbound procedures IAW applicable directives.

3.16.4.7.2. **Q-.** Performed outbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.16.4.7.3. **U.** Performed outbound procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.16.4.8. Area 8--On Station Procedures:**

3.16.4.8.1. **Q.** Performed on station procedures IAW applicable directives.

3.16.4.8.2. **Q-.** Performed on station procedures with errors or omissions that did not jeopardize mission accomplishment.

3.16.4.8.3. **U.** Performed on station procedures with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.16.4.9. Area 9--Malfunction Identification:**

3.16.4.9.1. **Q.** Recognized malfunction indications and reported them to the ART IAW applicable directives.

3.16.4.9.2. **Q-.** Recognized malfunction indications or reported them to the ART with errors or omissions that did not jeopardize mission accomplishment.

3.16.4.9.3. **U.** Failed to recognize malfunction indications. Recognized or reported malfunction indications to the ART with errors or omissions that could have jeopardized mission accomplishment.

**3.16.4.10. Area 10--Inbound Procedures:**

3.16.4.10.1. **Q.** Performs inbound procedures IAW applicable directives.

3.16.4.10.2. **Q-.** Performs inbound procedures with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.16.4.10.3. **U.** Performs inbound procedures with errors, omissions, or delays which could have jeopardized mission accomplishment.

**3.16.4.11. Area 11--Descent/Engine Shutdown/Before Leaving Aircraft:**

3.16.4.11.1. **Q.** Performed descent/engine shutdown/before leaving aircraft procedures IAW applicable directives.

3.16.4.11.2. **Q-.** Performed descent/engine shutdown/before leaving aircraft procedures with errors or omissions that did not jeopardize mission accomplishment.

3.16.4.11.3. **U.** Performed descent/engine shutdown/before leaving aircraft procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.16.4.12. Area 12--General Use Procedures:**

3.16.4.12.1. **Q.** Performed general use procedures IAW applicable directives.

3.16.4.12.2. **Q-.** Performed general use procedures with errors or omissions that did not jeopardize mission accomplishment.

3.16.4.12.3. **U.** Performed general use procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.16.4.13. Area 13--Emergency Procedures and Equipment:**

3.16.4.13.1. **Q.** Performed emergency procedures and used emergency equipment IAW applicable directives.

3.16.4.13.2. **Q-.** Performed emergency procedures or used emergency equipment with errors, omissions or delays that did not result in an unsafe situation or jeopardize mission accomplishment.

3.16.4.13.3. **U.** Performed emergency procedures or used emergency equipment with errors, omissions or delays that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.16.4.14. Area 14--Safety (CRITICAL):**

3.16.4.14.1. **Q.** Employed all available methods to ensure safety of flight during all phases of the mission.

3.16.4.14.2. **U.** Failed to ensure safety of flight during all phases of the mission.

**3.16.4.15. Area 15--Documentation:**

3.16.4.15.1. **Q.** Completed and submitted logs, forms, and other documentation IAW applicable directives.

3.16.4.15.2. **Q-.** Completed and submitted logs, forms, or other documentation with errors, omissions, or delays that did not jeopardize mission accomplishment or analysis.

3.16.4.15.3. **U.** Failed to complete or completed and submitted logs, forms, or other documentation with errors, omissions, or delays that could have jeopardized mission accomplishment or analysis.

**3.16.4.16. Area 16--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.16.4.16.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.16.4.16.2. **Q-.** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.16.4.16.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

**Table 3.17. Airborne Radar Operator Evaluation Matrix.**

<b>Evaluation Areas</b>	<b>ARO</b>
1. Mission Planning	R
2. Briefings/Debriefings	R
3. Prepermission Requirements	R
4. Preflight Inspection	R

Evaluation Areas	ARO
5. Before Start/Taxi	R
6. Internal/External Coordination	R
7. Outbound Procedures	R
8. On Station Procedures	R
9. Malfunction Identification	R
10. Inbound Procedures	R
11. Descent/Engine Shutdown/Before Leaving Aircraft	R
12. General Use Procedures	R
13. Emergency Procedures and Equipment	R
14. Safety (CRITICAL)	R
15. Documentation	R
16. Aircrew Discipline/Crew Coordination (CRITICAL)	R
R = Required evaluation area.	

### 3.17. Battle Director Technician Qualification and Mission Flight Evaluations:

3.17.1. **General.** This chapter contains the task oriented criteria for qualification and mission evaluations of a Battle Director Technician (BDT) and Instructor Battle Director Technician (IBDT).

3.17.1.1. Qualification evaluations will encompass all areas identified in the evaluation matrix. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment and safety of flight.

3.17.1.2. Mission evaluations will encompass all areas identified in the evaluation matrix for the mission profile performed. The examinee must demonstrate a degree of knowledge and proficiency essential for successful mission accomplishment, profile execution, and safety of flight.

3.17.1.3. BDT qualification and mission evaluations will be conducted on a live E-3 sortie while the examinee actively coordinates with a NORAD agency. Items not completed inflight may be accomplished in the simulator or using a verbal, table-top scenario.

#### 3.17.2. Evaluation Objectives:

3.17.2.1. **Qualification Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures.

3.17.2.2. **Mission Evaluation.** The examinee must demonstrate the ability to accomplish all required duties safely and effectively, using appropriate flight manuals, directives, and operating procedures to ensure successful employment and mission accomplishment IAW the evaluation matrix.

3.17.3. **Criteria.** All areas in this section will be graded using the grading policy in AFI 11-202V2, and any criteria listed within the individual areas.

#### 3.17.3.1. Area 1--Mission Planning:

3.17.3.1.1. **Q.** Assisted the MCC/BD in accomplishing mission planning that accounted for known mission requirements, limitations, and approved operating procedures IAW applicable

directives. Prepares mission kit material, ensuring all required equipment is available and serviceable. Read and initialed for all items in the FCIF and read files.

3.17.3.1.2. **Q-.** Performed mission planning with errors or omissions that did not jeopardize mission accomplishment.

3.17.3.1.3. **U.** Performed mission planning with errors or omissions that could have jeopardized mission accomplishment. Failed to read and initial for all items in the FCIF and read files.

**3.17.3.2. Area 2--Briefings/Debriefings:**

3.17.3.2.1. **Q.** Attended all required briefings/debriefings and extracted/provided all necessary information. Performed briefings/debriefings in an organized, logical sequence IAW applicable directives.

3.17.3.2.2. **Q-.** Attended all required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omission that did not jeopardize mission accomplishment.

3.17.3.2.3. **U.** Failed to attend required briefings/debriefings. Extracted information or performed briefings/debriefings with errors or omissions that could have jeopardized mission accomplishment.

**3.17.3.3. Area 3--Premission Requirements:**

3.17.3.3.1. **Q.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition and posted publications IAW applicable directives.

3.17.3.3.2. **Q-.** Possessed all personal/professional equipment and publications. Maintained equipment in serviceable condition. Posted publications with errors or omissions that did not jeopardize mission accomplishment.

3.17.3.3.3. **U.** Failed to possess all personal/professional equipment and publications or to maintain equipment in serviceable condition. Posted publications with errors or omissions that could have jeopardized mission accomplishment.

**3.17.3.4. Area 4--Preflight Inspections:**

3.17.3.4.1. **Q.** Performed preflight inspections IAW applicable directives and determined equipment status that may have affected mission accomplishment.

3.17.3.4.2. **Q-.** Performed preflight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that did not jeopardize mission accomplishment.

3.17.3.4.3. **U.** Performed preflight inspections and/or determined equipment status that may have affected mission accomplishment with errors or omissions that could have jeopardized mission accomplishment.

**3.17.3.5. Area 5--Before Start:**

3.17.3.5.1. **Q.** Performed before start procedures IAW applicable directives.

3.17.3.5.2. **Q-.** Performed before start procedures with errors or omissions that did not jeopardize mission accomplishment.

3.17.3.5.3. **U.** Performed before start procedures with errors or omissions that could have jeopardized mission accomplishment.

**3.17.3.6. Area 6--Internal/External Coordination:**

3.17.3.6.1. **Q.** Coordinated with the E-3 crew and/or external agencies/participants. Determined requirements, mission changes, equipment discrepancies and limitations IAW applicable directives and without misunderstanding, confusion or delay.

3.17.3.6.2. **Q-.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion or delays that did not jeopardize mission accomplishment.

3.17.3.6.3. **U.** Coordinated with and/or reported to the E-3 crew and/or external agencies/participants with errors, omissions, misunderstanding, confusion, or delays that could have jeopardized mission accomplishment.

**3.17.3.7. Area 7--Outbound Procedures:**

3.17.3.7.1. **Q.** Performed set up, check-out, and ensured reporting of status for console, communications, and other operator-tasked equipment to ensure operation was IAW applicable directives.

3.17.3.7.2. **Q-.** Performed set up, check-out, or status reporting with errors or omissions that did not jeopardize mission accomplishment.

3.17.3.7.3. **U.** Performed set up, check-out, or status reporting with errors or omissions that could have jeopardized mission accomplishment.

**3.17.3.8. Area 8--Communications Selection and Use:**

3.17.3.8.1. **Q.** Conducted communications selection and operated equipment based on performance capabilities and mission tasking IAW applicable directives. Transmissions were concise with proper terminology. Communications selection and use optimized situational awareness.

3.17.3.8.2. **Q-.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that did not jeopardize mission accomplishment. Transmissions contained excessive, extraneous matter, or employed non-standard terminology.

3.17.3.8.3. **U.** Conducted communications selection or operated equipment based on performance capabilities or mission tasking with errors or omissions that could have jeopardized mission accomplishment. Improper R/T procedures caused confusion that could have reduced mission effectiveness. Communications selection and use contributed to a lack of situational awareness that could have jeopardized mission accomplishment.

**3.17.3.9. Area 9--Classified/COMSEC Material:**

3.17.3.9.1. **Q.** Controlled and used classified/COMSEC material IAW applicable directives.

3.17.3.9.2. **Q-.** Controlled or used classified/COMSEC material with errors or omissions that did not jeopardize mission accomplishment or result in a security deviation.

3.17.3.9.3. **U.** Controlled or used classified/COMSEC material with errors or omissions that could have jeopardized mission accomplishment or could have resulted in a security deviation or compromise.

**3.17.3.10. Area 10--Emergency Procedures and Equipment:**

3.17.3.10.1. **Q.** Demonstrated thorough knowledge of emergency procedures/equipment. Properly diagnosed emergency. Thoroughly familiar with additional emergency duties. Coordinated with other crewmembers without delay.

3.17.3.10.2. **Q-.** Committed errors, omissions or delays in emergency procedures or had minor errors in knowledge of emergency procedures/equipment that did not result in an unsafe situation or jeopardize mission accomplishment.

3.17.3.10.3. **U.** Unsatisfactory knowledge of emergency procedures/equipment. Misunderstood additional emergency duties. Improperly or ineffectively coordinated with other crew members causing errors, omissions, delays or confusion that could have resulted in an unsafe situation and/or jeopardized mission accomplishment.

**3.17.3.11. Area 11--Safety (CRITICAL):**

3.17.3.11.1. **Q.** Aware of and complied with all safety factors required for safe aircraft operation and mission accomplishment.

3.17.3.11.2. **U.** Was not aware of or did not comply with all safety factors required for safe operation or mission accomplishment.

**3.17.3.12. Area 12--Situation Update:**

3.17.3.12.1. **Q.** Obtained the latest available intelligence situation for the MCC/BD prior to the premission briefing and updated as necessary. Contacted Air Defense Operations Center (ADOC), operational control (OPCON) agency, and Sector Operations Control Center (SOCC). Interpreted and briefed MCC/BD on command and control situation update messages and resources status information IAW applicable directives.

3.17.3.12.2. **Q-.** Obtained, interpreted, briefed or updated intelligence situation with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.17.3.12.3. **U.** Obtained, interpreted, briefed or updated intelligence situation with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.17.3.13. Area 13--Marshaling:**

3.17.3.13.1. **Q.** Assisted MCC/BD in employing marshaling plan to determine surviving command, control, and communications assets and resources.

3.17.3.13.2. **Q-.** Assisted MCC/BD in employing marshaling plan with errors or omissions that did not jeopardize mission accomplishment.

3.17.3.13.3. **U.** Assisted MCC/BD in employing marshaling plan with errors or omissions that could have jeopardized mission accomplishment.

**3.17.3.14. Area 14--Authorities:**

3.17.3.14.1. **Q.** Interpreted and briefed MCC on tabular information (TABs) and formatted messages to determine authorities, area of responsibility (AOR), centralized/decentralized

control level, command and control indicator, resources, weapons readiness states, defense conditions (DEFCONs), and readiness postures. Briefed centralized/decentralized control procedures and responsibilities under level 1, 2, and 3 decentralized control conditions. Prepared emergency action message format to assume command authority, as applicable.

3.17.3.14.2. **Q-.** Interpreted TABs, formatted messages, or centralized/decentralized control procedures or ABC/MCC/BD authorities with errors, omissions, or delays that did not jeopardize command authority, assumption of command, or mission accomplishment.

3.17.3.14.3. **U.** Interpreted TABs, formatted messages, or centralized/decentralized control procedures or ABC/MCC/BD authorities with errors, omissions, or delays that could have jeopardized command authority, assumption of command, or mission accomplishment.

**3.17.3.15. Area 15--Rules of Engagement (ROE):**

3.17.3.15.1. **Q.** Briefed the MCC/BD on implementing ROE procedures for peacetime, transition, and wartime conditions to include correct fighter tactics, Canadian/US sovereign airspace limits, recognition of hostile/harassment acts, and choice of correct divert bases. Provided MCC/BD with ROE flow charts and regulations IAW applicable directives.

3.17.3.15.2. **Q-.** Briefs ROE procedures with errors or omissions that did not jeopardize completion of ROE actions.

3.17.3.15.3. **U.** Briefs ROE procedures with errors or omissions that could have jeopardized completion of ROE actions.

**3.17.3.16. Area 16--Mission Execution:**

3.17.3.16.1. **Q.** Assisted MCC in prosecution of the air battle by ensuring a continuous flow of battle information. Briefed the MCC on the execution of operations orders (OPORDs)/operations plans (OPLANS) IAW applicable directives to include fighter generation and dispersal procedures. Employed emergency action messages (EAM) encoding/decoding procedures to include validity checks, command applicability checks, sector unique formats, automatic options, and use of authenticators, codes, and equipment. Assisted MCC/BD in interpreting earliest possible arrival times (EPATS) and autonomous operations.

3.17.3.16.2. **Q-.** Assisted the MCC, briefed execution of OPORDs/OPLANS, employed EAM encoding/decoding procedures, interpreted EPATS, or recognized need for/planned for autonomous operations with errors, omissions, or delays that did not jeopardize mission accomplishment.

3.17.3.16.3. **U.** Assisted the MCC, briefed execution of OPORDs/ OPLANS, employed EAM encoding/decoding procedures, interpreted EPATS, or recognized need for/planned for autonomous operations with errors, omissions, or delays that could have jeopardized mission accomplishment.

**3.17.3.17. Area 17--Aircrew Discipline/Crew Coordination (CRITICAL):**

3.17.3.17.1. **Q.** Demonstrated strict professional flight and crew discipline throughout all phases of the mission. Coordinated effectively with other crewmembers without misunderstanding, confusion, or undue delay.

3.17.3.17.2. **Q-** Minor deviations in flight and crew discipline did not adversely affect flight safety or mission accomplishment. Instructions/coordination not always clear and concise causing some misunderstanding, confusion, or delay.

3.17.3.17.3. **U.** Failed to exhibit strict flight or crew discipline. Intentionally violated rules/regulations.

3.17.3.18. The following areas are applicable to initial instructor upgrade/recurring instructor evaluations. Specific criteria are included in paragraph **2.4.** of this instruction.

3.17.3.18.1. **Area 18**--Instructional Ability.

3.17.3.18.2. **Area 19**--Briefings/Critique.

3.17.3.18.3. **Area 20**--Demonstration and Performance.



**Table 3.18. Battle Director Technician Evaluation Matrix.**

Evaluated Areas	Qual	Instr	Mission Profile
			NORAD
1. Mission Planning	R		R
2. Briefings/Debriefings	R		R
3. Prepermission Requirements	R		R
4. Preflight Inspections	R		R
5. Before Start	R		R
6. Internal/External Coordination	R		R
7. Outbound Procedures	R		R
8. Communications Selection and Use	R		R
9. Classified/COMSEC Material	R		R
10. Emergency Procedures and Equipment	R		R
11. Safety (CRITICAL)	R		R
12. Situation Update	R		R
13. Marshaling	R		R
14. Authorities	R		R
15. Rules of Engagement (ROE)	R		R
16. Mission Execution	R		R
17. Aircrew Discipline/Crew Coordination (CRITICAL)	R		R
18. Instructional Ability		R	
19. Briefings/Critique		R	
20. Demonstration and Performance		R	
<b>R = Required evaluation area.</b>			

MARVIN R. ESMOND, Lt General, USAF  
DCS, Air and Space Operations

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 11-2, *Aircraft Rules and Procedures*  
AFPD 11-4, *Aviation Service*  
AFI 11-202V2, *Aircrew Standardization/Evaluation Program*  
AFMAN 11-217, *Instrument Flight Procedures*  
AFM 37-139, *Records Disposition Schedule*  
AFI 11-214, *Aircrew and Weapons Director Procedures*

***Abbreviations and Acronyms***

**ABC**—Airborne Battle Commander  
**AC**—Aircraft Commander (used interchangeably with Pilot)  
**ACC**—Air Combat Command  
**ACO**—Airspace Control Order  
**ACS**—Airborne Communications Specialist  
**ACT**—Air Combat Tactics  
**ADOC**—Air Defense Operations Center  
**ADS**—Audio Distribution System  
**AFB**—Air Force Base  
**AFORMS**—Air Force Operational Resources Management Systems  
**AFRC**—Air Force Reserve Command  
**AFTTP/R**—Air Force Tactics, Techniques, and Procedures  
**AIT**—Aircrew Intelligence Training  
**AMSS**—Airborne Mission Systems Specialists  
**APU**—Auxiliary Power Unit  
**AOCP**—Airborne Operational Computer Program  
**AOR**—Area of Responsibility  
**ANG**—Air National Guard  
**A/R**—Air to Air Refueling  
**ARMTS**—Advanced Radar Maintenance System  
**ART**—Airborne Radar Systems Technician

**ARO**—Airborne Radar Systems Operator  
**ASO**—Air Surveillance Operator  
**AST**—Air Surveillance Technician  
**ATC**—Air Traffic Control  
**ATD**—Aircrew Training Device  
**ATO**—Air Tasking Order  
**AWACS**—Airborne Warning and Control System  
**BAQ**—Basic Aircraft Qualified  
**BDA**—Battle Damage Assessment  
**BDP**—Baseband Distribution System  
**BDT**—Battle Director Technician  
**BITE**—Built-in Test Equipment  
**BMC**—Basic Mission Capable  
**CD**—Counterdrug  
**CDI**—Course Deviation Indicator  
**CDMO**—Computer Display Maintenance Operator  
**CDMT**—Computer Display Maintenance Technician  
**CET**—Career Enhancement Training  
**CFG**—Communications Functional Group  
**CFP**—Computer Flight Plan  
**CFT**—Contract Flying Training or Composite Force Training  
**COG**—Center of Gravity  
**CMP**—Computer Maintenance Program  
**CMR**—Combat Mission Ready  
**COMSEC**—Communications Security  
**CONUS**—Continental United States  
**CP**—Copilot  
**CPS/DMP**—Control Power Supply/Diagnostic Maintenance Program  
**CSO**—Communications Systems Operator  
**CT**—Communications Technician or Continuation Training  
**CTD**—Course Training Document  
**DACT**—Dissimilar Air Combat Tactics

**DCA**—Defensive Counter-air

**DETCO**—Detachment Commander

**DH**—Decision Height

**DIODT**—Drum Initialized Override Data Tape

**DMP**—Diagnostic Maintenance Program

**DPS/DMP**—Data Processing System/Diagnostic Maintenance Program

**EA/EP**—Electronic Attack/Electronic Protect

**EAM**—Emergency Action Message

**ECM/ECCM**—Electronic Countermeasure/Electronic Counter-Countermeasure

**ECO**—Electronic Combat Officer

**EPATS**—Earliest Possible Arrival Times

**EPE**—Emergency Procedures Evaluation

**EPR**—Exhaust Pressure Ratio

**ESM**—Electronic Support Measures

**ESS**—Electronic Support System

**F**—Fahrenheit

**FAF**—Final Approach Fix

**FCIF**—Flight Crew Information File

**FCT**—Flight Crew Training

**FE**—Flight Engineer

**FEF**—Flight Evaluation Folder

**FIT**—Fault Isolation Test

**FLIP**—Flight Information Publications

**GPS**—Global Positioning Integrated Navigation System

**GS**—Ground Speed

**HDS**—Hard Disk System

**HQAN**—HAVE QUICK A Net

**IAS**—Indicated Airspeed

**IATP**—Individual Aircraft Tracking Program

**IAW**—In Accordance With

**ICAO**—International Civil Aviation Organization

**IFA**—Inflight Alignment

**IFF**—Identification, Friend or Foe

**IFR**—Instrument Flight Rules

**IFT**—In-flight Trainer (B-707/TC-18E)

**ILS**—Instrument Landing System

**INS**—Inertial Navigation System

**INU**—Inertial Navigation Unit

**IP**—Instructor Pilot (an "I" prefix designates an instructor in that crew position; e.g. IMCC)

**IQT**—Initial Qualification Training

**IRC**—Instrument Refresher Course

**JTIDS**—Joint Tactical Information Distribution System

**L/O**—Level Off

**LOA**—Letter of Agreement

**LOP**—Line of Position

**MAC**—Mean Aerodynamic Chord

**MAJCOM**—Major Command

**MCC**—Mission Crew Commander

**MDA**—Minimum Descent Altitude

**MOA**—Memorandum of Agreement

**MQT**—Mission Qualification Training

**N**—Navigator

**NAVAIDS**—Navigational Aids

**NCS**—Navigational Computer System

**NM**—Nautical Mile

**NOTAMS**—Notice to Airmen

**OCA**—Offensive Counterair

**ONC**—Operational Navigation Chart

**OPDR**—Office of Primary Development Responsibility

**OPR**—Office of Primary Responsibility

**OPSEC**—Operational Security

**OPTASKLINK**—Operational Tasking Data Link

**PAR**—Precision Approach Radar

**QRM**—Quick Reaction Message

**ROE**—Rules of Engagement

**ROP**—Radar Operational Program

**R/T**—Radio/Telephone

**SAR**—Search and Rescue

**SD**—Senior Director or Situational Display

**SEFE**—Standardization/Evaluation Flight Examiner

**SID**—Standard Instrument Departure

**SIF**—Selective Identification Feature

**SIS/VPN**—Special Information System/Voice Product Net

**SPINS**—Special Instructions

**SOCC**—Sector Operations Control Center

**SOI**—Signal of Interest

**SQB**—Secure Question Bank

**SST**—Senior Surveillance Technician

**TAB**—Tabular Information

**TACAN**—Tactical Air Navigation

**TD**—Tabular Display

**TH**—True Heading

**TKE**—Track Error

**TOD**—Time of Day

**USP**—Utility Stand-alone Program

**VDP**—Visual Descent Point

**VFR**—Visual Flight Rules

**VMC**—Visual Meteorological Conditions

**WD**—Weapons Director

**WX**—Weather

**XTK**—Cross Track

### ***Terms***

**Aircrew**—The complete complement of flight and mission crew personnel required to fly an operational mission.

**Aircrew Duties**—Duties which directly contribute to accomplishing E-3 mission objectives. Failure by any aircrew member to properly perform their assigned aircrew duties can result in an unsuccessful E-3 mission.

**Basic Mission Capable (BMC)**—A crewmember who requires further training prior to being certified to perform tactical duties in support of E-3 roles and missions defined in AFTTP 3-1V15. BMC crewmembers have completed MQT but do not maintain CMR status due to staff duty assignment or other reasons as determined by the appropriate authority.

**Combat Mission Ready (CMR)**—A crewmember who has been trained and certified to perform tactical duties in support of E-3 roles and missions defined in AFTTP 3-1V15.

**Composite Force Training (CFT)**—Training that includes two or more aircraft types performing two or more mission roles (e.g. F-15s providing escort for F-16s performing air interdiction). CFT exercises vary in complexity and size from smaller ORE/ORIs to RED FLAG/GREEN FLAG scenarios.

**Continuation Training (CT)**—Flying and ATD training designed to maintain proficiency and improve crewmember capabilities.

**Flight Crew**—The pilot, co-pilot, navigator, and flight engineer.

**Initial Qualification Training (IQT)**—Prepares aircrew members to perform non-tactical duties in the aircraft. Training is conducted IAW approved syllabi. Graduates of IQT are awarded Basic Qualification (N-CMR/N-BMC) status after successful completion of a ACC/PACAF evaluation (AFI 11-2E3/TC18V2).

**Instructor**—An MR qualified aircrew member who has been trained to provide instruction in their crew position.

**Mission Crew**—Those individuals responsible for the command, control, surveillance, and communications/electronic/management functions to include the control and monitoring of assigned aircraft, sensor management, internal and external communications management, and onboard systems management.

**Mission Qualification Training (MQT)**—Prepares aircrew members to perform tactical duties in support of unit taskings. Graduates of MQT are certified MR/BMC by the squadron commander.

**Operational Mission**—E-3 mission with primary objectives supporting higher headquarters tasked surveillance and/or control.

**Training Mission**—E-3 mission with primary objectives of completion of E-3 aircrew member training and/or support of other participating unit's training.

**Unqualified (UQ)**—Aircrew members who are not qualified to fly or operate E-3 systems and equipment unless they are under the supervision of a qualified instructor in the applicable crew position.